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Technological Unemployment in the Railroad Industry

The Mortgage Fund Market

Membership of American Trade Unions, 1956

Seven Papers from the IRRA Annual Meeting on—

Current Research in Industrial Relations

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Monthly Labor Review

UNITED STATES DEPARTMENT OF LABOR • BUREAU OF LABOR STATISTICS

LAWRENCE R. KLEIN, *Editor-in-Chief*

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The Labor Month in Review

A ROCKY ROAD to the presidency of the Teamsters union was maneuvered by James R. Hoffa when the convention of that organization on October 4 overwhelmingly elected him to office. A measure of his control of the membership is indicated by the obstacles and alternatives interposed during the fortnight preceding the vote by those opposing his succession to the post vacated by Dave Beck. Four opposition candidates had entered the lists. A petition of 13 rank-and-file members to enjoin the election on the grounds of illegally chosen delegates was ultimately denied by the Chief Justice of the Supreme Court. Additional hearings by the Senate Select Committee on Improper Activities in the Labor or Management Field, before which Hoffa had previously appeared, resulted in 34 additional charges of misconduct against him, chiefly misuse of union funds. A Federal grand jury in New York indicted him for perjury committed during an investigation that had led to an earlier indictment for illegally tapping union telephones. The AFL-CIO Executive Council, acting on a report of its Ethical Practices Committee, warned the Teamsters, its largest affiliate, that it faced suspension if Hoffa were elected.

As a result of the election, suspension appeared likely at the expiration of the 30-day period given the Teamsters to rid itself of control by "corrupt" elements. Final resolution of the union's status will be determined at the AFL-CIO convention which is to begin on December 5.

The convention dropped vice presidents Sidney L. Brennan, of Minneapolis, and Frank W. Brewster, of Seattle, along with the retiring president, leaving only Hoffa remaining among those cited by the AFL-CIO. Some constitutional changes to bring the union into line with AFL-CIO prescribed practices were made. Other changes transferred certain presidential powers to the General Executive Board, but in the main, the

tendency was in the direction of more centralized control of the organization.

UNUSUAL LITIGATION involving unions or union officials, highlighted by the Chief Justice's refusal to enjoin the Teamsters' election, was frequent in recent weeks. A United States district court held that the Brotherhood of Locomotive Firemen was not compelled by Federal law to admit Negroes to membership, since Congress had left union membership qualifications in union hands; a group of Negroes had sued for admission. The International Electrical Workers, in a National Labor Relations Board proceeding, claimed that "racist propaganda" used by an employer prior to a representation election was an unfair labor practice. The Retail Clerks filed a \$2.5 million libel suit against the Atlantic Mills Servicing Corp., an Ohio store, claiming leaflets issued by the firm in connection with an employee representation election made damaging remarks concerning the union and its officers. Meanwhile, Joseph Curran, president of the National Maritime Union, filed a \$550,000 libel suit against columnist Westbrook Pegler for placing his "good name and prestige in the labor field" in jeopardy. He charged Mr. Pegler with referring to him as a "racketeer," a "Communist," and a "bum." A New York State hearing referee ruled against the Textile Workers Union of America which had claimed, on the basis of a quirk in the State law, that certain workers on paid vacations could draw unemployment insurance. (Some workers had previously been declared eligible for and had drawn the dual payments.) A trial examiner on October 10 recommended to the National Labor Relations Board that most strikers who had been replaced by the Kohler Co. since April 5, 1954, be reinstated. The United Auto Workers has been conducting a strike against the company since that date.

INCREASES WERE GRANTED September 20 to about 23,000 telephone equipment installers after a 4-day nationwide strike called by the Communications Workers of America against the Western Electric Co. The 2-year agreement calls for 6 to 12 cents an hour increases and permits renegotiation of wage rates after a year. Just prior to the strike, the same union settled with Western Electric at

three manufacturing plants and at Bell Laboratories, on substantially the same terms.

Industrywide bargaining for the automobile industry when present contracts expire next spring was advocated on September 19 by George Romney, president of American Motors, a firm which in the past has opposed such action. He stated that "any individual company" lacked sufficient ability "to bargain effectively against the total strength of the United Automobile Workers." A solid industry front, he suggested, would aid in controlling inflationary elements of union demands. The union was quick to oppose the suggestion, claiming that industrywide bargaining to create a power bloc against the UAW "would not only lead to excessive concentration of power but . . . eventually to the end of free management and free labor as we know them today."

Opposition to industrywide bargaining in the auto industry also came a week later from Ernest G. Swigert, president of the National Association of Manufacturers. He too warned that it could lead to Government controls. The NAM official additionally suggested that the auto industry accept a strike rather than accede to a shorter workweek, an expressed 1958 goal of the UAW.

On the same subject, Thomas F. Patton, president of Republic Steel, said it would take a "long strike" to establish a new basis for overtime by reduction of the basic workweek in the steel industry, but that resistance to such a union demand would be weakened if another basic industry granted a reduction. Secretary of Labor James P. Mitchell earlier in September had suggested that "we have to let this thing [the shorter workweek] come by evolution and not to the detriment of the full use and development of our resources."

One result of a shorter workweek could be the possibility of increased opportunity for dual job holding by an employee. A survey of rubber workers working on a 36-hour week in Akron disclosed a propensity for this use of the additional "off work" hours. The International Association of Machinists, through its weekly publication, on September 26 warned against the practice, known as "moonlighting." In addition to deleterious health effects, it warned, moonlighting creates a threat to union wage scales, and all in all "is a serious violation of the basic principle on which the union is built."

Some of the union agitation for a shorter workweek derives from technological advances in specific industries. The objective is to compensate for job losses. The Amalgamated Lithographers, meeting in Chicago at their 75th anniversary convention, endorsed a proposal that the union join with management in creating a \$2-million fund to foster technological development in lithography. It took the position that new processes would create jobs and assist the union in its current organizing drive, which has involved it in jurisdictional disputes. In another resolution, the union expressed willingness to withdraw from the AFL-CIO if necessary to realize its objective of organizing all lithographers, including those working in plants under contract with the International Typographical Union and other organizations.

MEANWHILE, the AFL-CIO Executive Council formally approved the affiliation of the 160,000-member Brotherhood of Railroad Trainmen, upon "firm assurance" that the BRT will drop its ban on Negroes. Years of feuding on the part of the American Radio Association and the Radio Officers Union (an affiliate of the Commercial Telegraphers) apparently ended in September with agreement to a program of cooperation in various fields of union endeavor. A divisive note, however, was heard at a Midwest conference of the AFL-CIO Building Trades Department when Richard Gray, its president, declared that the department had been "sucked into" the merger convention. The conference recommended withholding of per capita tax payments to the federation after March 1, 1958, unless a satisfactory solution to jurisdictional problems with industrial unions is found.

Heart surgery research conducted by the James Whitcomb Riley Hospital for Children in Indianapolis was saved from abandonment by a \$14,000 grant from the State CIO organization.

Thomas J. Lloyd, a vice president, succeeded to the presidency of the Amalgamated Meat Cutters left vacant by the death of Earl W. Jimerson, 68, who died on October 5. (Several local officials of the union and an international vice president were ordered to submit certain financial records to the Senate select committee, but by October 10 had failed to respond to a subpoena.)

Maintenance of Way Employment

EDITOR'S NOTE.—*This article is the first of two based on a study of the problems of insecurity and instability in maintenance of way employment undertaken at the request of the Brotherhood of Maintenance of Way Employes.¹ In the foreword to the complete work, Professor Sumner H. Slichter of Harvard University states, "The two most important things about this study are (1) that the Brotherhood insisted that it be the independent work of the economists and that it represent their analysis of problems and their evaluation of proposed policies, and (2) that the study is being made available to all in the industry by being published." The union, he said, had "provided an admirable example of how to approach the problem of policymaking when the issues are difficult and controversial."*

Part II of the study will deal with the seasonal and cyclical instability of maintenance of way employment.

I—Technological Displacement in Employment and Possible Moderating Measures

WILLIAM HABER AND MARK L. KAHN*

TRANSPORTATION ACTIVITY in the United States has multiplied severalfold during the last few decades. The railroad industry has not shared proportionately in the resulting opportunities, however, because of increasing competition from passenger cars, buses, trucks, aircraft, and pipelines. Gross ton-miles carried by rail have increased by only about one-fourth since the 1920's. (See chart.) Meanwhile, technological progress has tripled the productivity of maintenance of way employees. As a result, maintenance of way employment has fallen by more than 50 percent since the 1920's to its present level of 170,000, compared with a decline of approximately 39 percent in total railway employment.

Since World War II, the number of maintenance of way jobs has dropped an average of 680 per month. We are not aware of any other major category of workers—even in some acknowledgedly “sick” industries—in which employment cutbacks have been so persistent and so drastic.

The prospective rate of decline is less severe than during the recent past. Nevertheless, it is

clear that hundreds of regular maintenance of way men face long-term or permanent displacement every year for the foreseeable future. The insecurity caused by this gloomy outlook is aggravated by the existence of severe cyclical and seasonal employment fluctuations which greatly exceed the actual short-run variations in physical maintenance of way requirements.

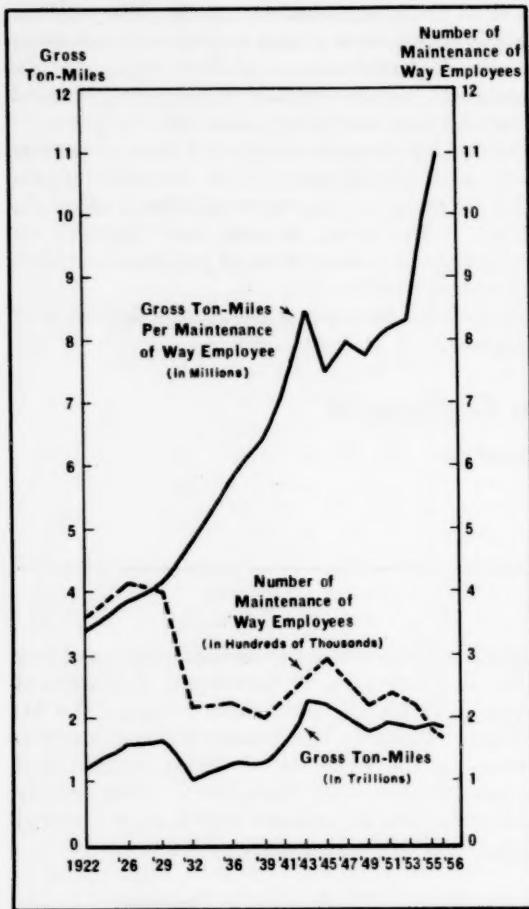
Some Effects of Technological Progress

Aggregate industry data tend to conceal the fact that the degree and rate of technological change varies greatly among the different railroads. Many aspects of the adjustment to changes in equipment and methods must be dealt with on the property at the time innovations are being effected.

*Professor of Economics, University of Michigan, and Associate Professor of Economics, Wayne State University, respectively.

¹ William Haber; John J. Carroll, Associate Professor of Economics, St. Lawrence University; Mark L. Kahn; and Merton J. Peck, Assistant Professor of Business Administration, Harvard University, Maintenance of Way Employment on U. S. Railroads—An Analysis of the Sources of Instability and Remedial Measures (Detroit, Brotherhood of Maintenance of Way Employes, 1957).

**Gross Ton-Miles per Maintenance of Way Employee,
Class I Railroads in the United States, Selected
Years, 1922-56**



Although a strong case can be made for nationwide rules of procedure, and for the development of general principles of adjustment, it is essential to retain flexibility in substantive matters at the level of the individual railroad and the corresponding (system) organization of the Brotherhood of Maintenance of Way Employees.

Technological progress has a qualitative as well as a quantitative impact on maintenance of way employment. Mechanization of operations previously performed by laborers with simple hand-tools creates new occupations associated with the operation and the maintenance of the machinery and raises the average skill level.

Traditionally, most maintenance of way operations were performed by section gangs, with each section gang responsible for a specified portion of the right of way. Mechanization encourages the performance of heavy maintenance by specialized, mobile work gangs capable of using the expensive new equipment efficiently and economically. The territory to be covered must be divisional or even systemwide before the use of some kinds of equipment can be economically justified.

The use of specialized gangs for heavy maintenance often leads, in turn, to a reduction in the number of section gangs, to an increase in the length of sections, and to the use of section gangs largely for policing and inspection purposes only. Employees who are assigned to the mechanized gangs are characteristically required to spend considerable periods of time living away from home in trailers or camp cars.

Shorter Hours of Work

Can a shorter workweek make a helpful contribution to maintaining employment in maintenance of way departments? The 40-hour week has prevailed in the United States for about two decades. On the railroads, however, the 40-hour week was not established until 1949, when the standard workweek was reduced from 48 hours without loss of weekly pay. This achievement meant an increase of 20 percent in the hourly rate of pay.

Early efforts to obtain shorter hours emphasized the desirability of greater leisure to offset the physical strains of work and to permit self-improvement and better family life. Today, because there has been a substantial relative increase in nonwork time, additional leisure is no longer the major consideration. Actually, there is evidence that where sufficient work opportunities are present, workers and unions usually prefer additional income to additional leisure.² Only when technological or economic developments threaten to displace substantial numbers of regular employees are unions likely to press vigorously for shorter hours (provided there is no loss in weekly pay) as a countermeasure.

Except among office workers (who are predominantly female and unorganized) only nomi-

² See History of Union Efforts to Reduce Working Hours (in Monthly Labor Review, November 1956, pp. 1271-1273).

nal progress has been made in the United States toward a workweek of less than 40 hours. A recent Bureau of Labor Statistics survey of 17 areas³ found 46 percent of office workers but only 7 percent of plant workers on regular schedules of below 40 hours per week.

Those significant examples which can be found of standard workweeks below 40 hours are among highly paid and cohesive skilled groups (printing and building trades); in fields where female employees predominate (office workers, ladies' garment workers); and in response to imminent or actual technological displacement (mechanized bakeries, brewing industry).

If weekly pay is maintained while hours are cut, there is an increase in the hourly wage rate. Presumably, a similar increase might have been granted without any reduction in hours, thus increasing weekly pay for those who remained employed. Hence, to offset technological displacement by shortening the workweek would, in these circumstances, be a device by which the many are made to suffer losses in earnings in order to benefit the few whose jobs are saved. From a community point of view, as well as from the point of view of the employee majority, the use of shorter hours to counteract permanent reductions in employment is particularly undesirable during periods of prosperity, when nonrailroad alternatives are more readily available.

While it is likely that shorter hours would mean the retention of a somewhat larger number of individuals on the payroll, the extra employment may in the long run fall well short of the theoretical maximum because of offsetting economies. This was the case among maintenance of way employees after they obtained the 40-hour week in 1949. The change from the 48-hour to 40-hour week in 1949 led to a small increase in maintenance of way employment in 1950 and 1951. In a short time, however, employment declined sharply, falling from 256,000 in 1948 to 184,000 in 1954. This steep decline suggests that the advent of the 40-hour week, with its higher hourly labor costs, may have provided an additional stimulus to mechanization.

The economic characteristics of the railroad industry and the personal characteristics of maintenance of way employees suggest that it is not advisable or practical for the Brotherhood to "lead the parade" to shorter hours, nor is it likely that the railroad brotherhoods as a whole will want to establish a shorter workweek before it has become a prevailing practice in the community at large.

Over a period of years, the maintenance of way employees, in common with all workers, will naturally participate in and benefit from a continuation of the historical trend to shorter hours. Leisure is part of the American standard of living and is an appropriate end in itself. We should not confuse shorter hours as a means to leisure with shorter hours as a means to limit unemployment. Both objectives can be borne in mind as policy is shaped.

"Freezing" Employment

Any commitment by a carrier to guarantee a minimum proportion of total employment for maintenance of way jobs, or a minimum absolute number of maintenance of way jobs, if obtainable, would in our judgment prove to be largely superfluous or futile. A specific example of this "freeze" approach was contained in Proposal I of the 1950 Employment Stabilization Program of the Brotherhood: that, on each carrier, the average employment in each maintenance of way class should not fall below the number required to maintain the same ratio to total carrier employment as the average ratio during the 1940-49 decade.

Such a guarantee, if given, might lead to some enlargement of work opportunities in light of the tendency of maintenance of way employment to decline as a proportion of total railroad employment. It could, for example, encourage the makeup of deferred maintenance and the postponement of laborsaving innovations. It might discourage contracting out. On the other hand, it might simply compel the carrier to employ (or pay) more men than it can economically use.

This kind of guarantee would, in our judgment, unwisely impede technological progress. Furthermore, any particular base period would give the already highly mechanized carrier a permanent advantage and would tend to discriminate against those carriers that have encountered more difficult

³ See Wages and Related Benefits, 17 Labor Markets, 1955-56, BLS Bull. 1188 (1956), table B-3, p. 54; see also Scheduled Workweeks and Shift Differentials in 17 Labor Markets (in Monthly Labor Review, November 1956, pp. 1295-1299).

economic circumstances. If applied on the basis of each of the 16 major job categories, as proposed, it would serve to bar many of the unavoidable (and largely desirable) occupational changes that must accompany mechanization. If it maintained jobs by postponing innovations, it would likewise delay the benefits of progress for many employees, such as a higher general level of wages and a larger proportion of better and safer jobs.

We recognize the appeal of such a direct approach, as well as the rationale that maintenance of way employment ought not to suffer relatively more than other classes of railroad employment. Nevertheless, we cannot believe that agreements to freeze the status quo, in either absolute or proportional terms, offer a realistic device for achieving stabilization objectives. Such agreements are unacceptable to the employer because of the arbitrary restrictions thereby placed upon managerial decisionmaking. They are not in the public interest because they might retard desirable reductions in the cost of railroad transportation. There is little likelihood that a public appraisal (for example, by an Emergency Board created under the Railway Labor Act) would elicit the kind of response needed for their obtainment. Finally, such agreements are likely to be self-defeating, given the elastic demand for rail transportation, since keeping costs up would cause a further loss of business to competing forms of transport and an accompanying loss of employment.

Rather, by the use of measures such as those examined below, carriers could make decisions concerning the nature and timing of innovations in light of the full costs and on a basis that would maximize the equities which employees have in their railroad jobs. For those who remain employed, jobs will become, on the average, more skilled, better paid, and less unstable.

A Positive Approach to Technological Change

From the point of view of the Brotherhood, effective implementation of its stabilization objectives requires an approach to technological change that might be outlined in this fashion: "Before a new machine or method is introduced, we want (1) notice that something is going to happen that may affect our people, and an opportunity to confer with management about it. We also want to make

sure (2) that the proper individuals are chosen for the opportunities created by the innovation and have access to the necessary training; (3) that appropriate adjustments are made in job classifications and in the rates of pay for new jobs; (4) that workers are adequately compensated for any deterioration in job conditions, such as service away from home; (5) that maintenance of way men be considered for any available employment in other railroad departments; and (6) that the men who are displaced have adequate compensation."

Let us examine each of these matters in turn.

Prior Notice and Joint Consultation. Good contract administration is essential for effective adjustment to new machines and methods. In general, the existing collective bargaining agreements between the Brotherhood and the carriers already make the rates for new positions a matter for negotiation. Effective negotiation ordinarily requires adequate notice of contemplated changes and the holding of conferences before the changes are instituted. When decisions cannot be made in advance, their ultimate application should be fully retroactive.

Many roads already practice prior notice, either formally or informally, and on some carriers there is thorough consultation with the general chairman of the Brotherhood. Unfortunately, our investigations also indicate that on many carriers it is not unusual for new equipment to be introduced without any notice, and for protracted delays to ensue before pay rates and other conditions are determined.

A collectively bargained national rule governing prior notice and joint consultation on changes in machines and methods might prove an effective way to raise the average practice toward the level of the best without interfering with system-level decisions on matters of substance.

Access to New Occupations. Maintenance of way employees should have a preferential opportunity to qualify for new types of jobs in maintenance of way departments. Training for employees who can qualify in a "reasonable" period should be at company expense. This principle has ample precedent in industrial relations practice.

The definition of "reasonable" must evolve from negotiations, often on a case-by-case basis.

It would be affected by the qualifications of current employees in relation to the new job requirements; by the amount of training outsiders would require; by the full costs of displacing regular employees; and by the costs and length of training. In general, the underlying value of a railroading background should not be underestimated.

Experience to date suggests that most carriers have had no difficulty in recruiting competent operators for even the most complex mechanical equipment from the maintenance of way ranks. Extensive training is not generally required for "operator" classifications. However, the maintenance of complex equipment may often require a longer period of specialized training.

Job Reclassification. Orderly wage administration requires the prompt reclassification and rerating of changed jobs or new types of jobs. Our investigations indicate that on many carriers these actions are not taking place or occur only after long delays. Many "laborers" appear to be operating machines.

In addition to new operating and maintenance classifications, special attention should be given to foreman and assistant foreman positions. (These two classifications are represented by the Brotherhood.) The foreman of a specialized and mechanized gang that operates on a district, divisional, or systemwide basis holds a job that is markedly more responsible, and demands more breadth and skills, than the traditional track foreman position. Moreover, the structure and operations of many of the specialized gangs warrant in many cases the creation of an assistant foreman position. This has already taken place on some carriers.

Compensation for Deterioration in Working Conditions. This is too obvious a point to be belabored. If men have to spend substantial periods away from home, living in trailers or camp cars, as a result of their employment in specialized gangs, the associated discomforts are in the carrier's interest. Appropriate compensation, perhaps in the form of per diem travel allowances, should be provided where it does not already exist. Such allowances, like the other costs of innovation discussed in this section, should be systematically anticipated by the carrier when innovations are being planned.

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Preferential Hiring. Employees who must be separated from their regular maintenance of way jobs should be given preferential access, on an orderly basis, to any opening in other departments of the same carrier or in any departments of other carriers. Such opportunities are not often available because of the general downturn in railroad employment and because furloughed men from other departments naturally have the priority on openings in those departments. We are aware, however, of specific instances in which preferential employment has served to keep maintenance of way men in railroading while reducing the cost of unemployment insurance.

When a job opportunity in another department represents an advancement, arrangements should be encouraged which would permit qualified maintenance of way men to bid for the position on a seniority basis and with appropriate safeguards. When any maintenance of way man takes a position in another department he creates an opportunity for a laid-off employee to return to work.

Dismissal Compensation. Most of the Nation's railroads and the 21 major railroad unions entered into the Washington Job Protection Agreement in 1936. This agreement provides dismissal allowances to employees who are terminated as the result of a coordination (consolidation). These allowances continue for periods of up to 5 years, depending on length of past service, and equal 60 percent of previous regular monthly compensation. Also, employees who are shifted to lower paying jobs, as the result of a coordination, are paid the full difference for 5 years, while employees who incur moving expenses or residence property losses are reimbursed by the railroad.

In 1940, Congress amended the Interstate Commerce Act so as to require the Interstate Commerce Commission to impose employee protective conditions in connection with mergers so that employees would not be left in a "worse condition" for 4 years (or a period equal to the individual's previous service, if less). Similar conditions were imposed by the ICC in 1944 for the benefit of employees adversely affected by an abandonment.

Thus, as the result of collective bargaining and public policy, protection of employees who are adversely affected by consolidations and abandon-

ments has become a firmly established practice in the railroad industry. Is it reasonable that when a regular employee loses his job for other reasons beyond his control—such as technological change—he should not be eligible for similar protection?

During the 1930's, consolidations were the major source of job loss for long-service employees. It was natural that special remedies should have been devised to meet that problem. Today, technological displacement takes first position and demands remedial action. Actually, a consistent and equitable scheme of dismissal compensation requires the same benefits for any given class of employees, regardless of the cause of their permanent separation, provided only that the job loss is not the fault of the employee.⁴

Recognition of this principle is contained in a recent agreement between the Chesapeake & Ohio Railroad and the Brotherhood of Railway Clerks dealing with the establishment of a new Univac computer center:

It is hereby agreed to adopt and apply the beneficial provisions of the so-called Washington Agreement of May 1936 to all employees adversely affected as a result of their work being placed in the Computer Center from time to time so as to provide similar treatment and benefits to those which would have been provided or accorded had the work gone into the Computer Center from two or more carriers and thus constituted a coordination as that term is used and defined in the so-called Washington Agreement.

The specific provisions of the Washington Agreement, the 1940 amendment to the Interstate Commerce Act, and other established precedents, are certainly not sacred. They do provide, however, a useful basis for the development of a mutually acceptable formula.

The alternative to a privately established solution is probably one that is legislatively imposed. The Harris bill (H. R. 4353, 85th Cong., 1st sess., introduced February 5, 1957) represents an effort in the latter direction by way of an extension of benefits provided under the Railroad Unemployment Insurance Act.⁵ The collective bargaining route is preferable if mutually satisfactory agreements can be reached.

Summary

The following measures, then, constitute in our judgment the avenues along which a practical program can be developed to deal with the permanent job displacements arising out of changes in machinery and methods and the economic status of the industry: (1) Notice by the carrier and union-management consultation prior to the introduction of new methods or machines; (2) preferential status for current maintenance of way employees for access to new positions in maintenance of way departments and in other departments and for necessary training on company time and at company expense; (3) effective and prompt reclassification and rerating of new jobs, by joint negotiation; (4) compensation for any deterioration in job conditions; (5) preferential reemployment rights and training in other crafts and classes and also on other carriers for regular maintenance of way men who have been displaced; and (6) displacement compensation or severance pay—extending the precedents that have been established in connection with consolidations and abandonments—for all regular maintenance of way employees whose permanent separation (through no fault of their own) cannot be avoided.

Basic to this approach is an acceptance of technological progress and a recognition of its values for the community, the industry, and the employees themselves. In the long run, such acceptance requires an adjustment process that is accepted and understood by all parties and equitable protection or compensation for those individuals who become the casualties of progress.

⁴ For further discussion, see Dismissal Pay Provisions in Major Bargaining Agreements (in Monthly Labor Review, June 1957, pp. 707-712).

⁵ In addition to the (roughly) 26 weeks of benefits currently provided under railroad unemployment insurance, the Harris bill would give long-service employees who had exhausted regular benefits and who did not voluntarily leave work without good cause or voluntarily retire the following extended benefits:

<i>Years of service</i>	<i>Number of 14-day periods of extended benefits</i>
5 and less than 10	39
10 and less than 15	65
15 and less than 20	91
20 and over	117

The Tenth IRRA Annual Meeting

EDITOR'S NOTE.—*The seven articles which comprise this special section of the Review are excerpts from papers read at the tenth annual meeting of the Industrial Relations Research Association. The focus of the program at this meeting, which was held in New York City on September 5-7, 1957, was current research in industrial relations. The material presented here is that which was thought to be most interesting to the various groups among the Review's readers. Liberties taken with the authors' texts include the alteration of titles, minor word and style changes without notation, and the omission of ellipsis marks to indicate unused portions of the papers.*

Structure and Policy in the Teamsters Union

FROM THE VERY BEGINNING, the national Teamsters union consisted of a group of relatively autonomous locals. Prior to the turn of the century, the typical local union of Teamsters included drivers of all kinds of wagons. But about that time, particularly in Chicago, the craft type of structural unit became dominant. It was recognized there that even in the same city, drivers employed in one industry in some instances had little in common with those working in another, except that they all used horses and streets. Methods of wage payment, hours, and discipline quite frequently were different.

Mixed locals of drivers have continued to function in those places where union membership is too small to permit occupational breakdowns. But when separate locals based on craft were established in one geographical area, the international constitution from the outset provided for joint councils. Such councils, which were prescribed in every city having 2 or more (now 3 or more) locals of Teamsters, were assigned the duty of considering and acting upon matters involving strikes, lockouts, boycotts, and lawsuits of their constituent units.

For many years, the jurisdiction claimed by the international was limited strictly to drivers; and the degree of control exercised by the general officers over locals was nominal. Although the

constitution of the union might be construed to have assigned a substantial amount of authority to the president and general executive board, such an interpretation would not be a realistic appraisal of the situation in effect. Except for cases in which locals expected financial assistance from the international for members out on strike and instances where rival or dual unionism was involved, the president of the International Brotherhood of Teamsters rarely showed interest in local activities. Daniel J. Tobin, who held the office of president from 1907 to 1952, had a headquarters staff of only two persons during most of that period. At the same time, locals were not ordinarily willing to call upon Tobin for assistance or look to the national organization for advice.

Reasons for Structural Changes

Modification in the structure of the Teamsters union resulted mainly from two factors—the drive by some leaders in the union for more power and the remarkable development of the motor-truck as a means of transporting freight in the United States. The expanding jurisdiction of the IBT, which was an outgrowth of this behavior, became marked in 1918 when the union made claims for control over all dairy workers. The explanation offered by the union on many of the occasions when it was engaged in extending its domain, however, has been that such action is necessary to protect and strengthen the position of workers already organized.

The use of over-the-road or intercity trucking as a basic means of shipping goods was not only responsible for new patterns of transportation but caused drastic alterations in the structure of the Teamsters union. An increase in the number of over-the-road drivers made it urgent that the union organize them so as to solve the competitive problems which they introduced. Many of them had no compunction about cutting rates and taking local work away from unionized men.

In 1934, leaders of Minneapolis Local 574 first began to organize them systematically. They accomplished the task by requiring all drivers coming into Minneapolis terminals controlled by the local to be union members. Gradually, the strategic position of the local grew in the Midwest. It then set up the District Drivers Council to coordinate the work of those Teamster locals in the region affected by intercity operations and bring workers other than drivers into the union. In 1938, the council achieved a uniform contract for over-the-road drivers.

On the West Coast, Dave Beck was able to establish his hegemony over the entire region. In 1937, Beck was strong enough, despite intense opposition by Tobin, to set up the Western Conference of Teamsters in the 11 western States and the Canadian province of British Columbia. The ostensible intent of the conference was to function as a voluntary and advisory body. But, in reality, it was used to combine some of the financial resources available and integrate the efforts of numerous organizers in an attempt to increase union membership and improve contract terms. Although conferences were not recognized by the constitution of the IBT until 1947, Beck was in undisputed control of the West Coast from the time he formed the Western Conference.

The Southern Conference, which has thus far not been particularly effective in organizing the South, was created in 1943 by the amalgamation of the Southwest Over-the-road and General Teamsters Council and the Southeast Teamsters Council. The other two conferences, the Central States and the Eastern, were set up in 1953 during the first year of Beck's administration as president of the international union. The work of each conference is directed by a chairman, appointed by the general president from among the vice presidents and international organizers, and an executive board or policy committee elected from

the locals and joint councils involved. Trade divisions within each conference are based on the different types of work performed by union members in the region. They include units such as bakery, over-the-road or freight, general hauling, shipbuilding and waterfront, warehouse, cannery and frozen foods, laundry and dry cleaning, brewery and soft drinks, taxicab, and local cartage. In a number of cases, especially in the Midwest, State conferences have been established to deal with more localized trucking problems, such as the supervision of welfare funds for intra-city drivers.

There has been a slow but continuing increase in the influence and power exercised by the conferences. As uniform contracts become more prevalent over larger geographical areas, the conferences assume a more vital role in negotiating and enforcing provisions in the agreements. The trend is clearly in the direction of increasing their strength at the expense of the joint councils and locals. One of the more significant achievements of the past decade, made possible by the establishment of conferences, has been the negotiation of a local cartage agreement in the Central States covering almost all drivers working for common and contract carriers in short-run hauling of freight. This contract provides uniform working conditions in the entire region.

During the past few years, the structure of the union has been further modified by the creation of national trade divisions. These units are chartered by the international for a broader geographical area than is assigned the trade divisions within the conferences. Apparatus is thereby available for simultaneous national bargaining with all employers of Teamsters engaged in the same craft or with a company having establishments spread over the entire country. Although there has been evidence of conflicts in authority between the conferences and the national trade divisions, it appears that the conferences will wield power over the locals and the trade divisions will normally [function] on an advisory basis.

The Making of Policy

The convention of the international union, which is the supreme governing body, meets every 5 years to elect officers and decide all matters submitted for its consideration. The repository

of power between conventions is the general executive board. Considerable power is vested constitutionally in the general president, however. He has authority in emergency situations which he deems "imminently dangerous to the welfare" of the union to assume original jurisdiction in conducting the trial of a member, officer, local, joint council, or other unit in the union. He may appoint trustees to supervise joint councils or locals, if he thinks such action necessary. The president appoints and removes international organizers, decides whether members involved in strikes and lockouts are entitled to benefits, approves bylaws of locals and other subdivisions, and validates contracts negotiated in the union.

Unquestionably, the Teamsters union would be highly centralized if the powers delegated to the general president were exercised by him to their full extent. But his actions and decisions have been affected by the attitude of subordinate officials and the knowledge that court intervention in union affairs is a distinct possibility under certain conditions. Most important, however, in tempering presidential intervention has been recognition of the fact that the general executive board, to which his decisions may be appealed, has almost invariably favored local autonomy.

The appointment of trustees has to a limited extent helped centralize union control. The power was first given to the president in 1908 in order to permit him more effectively to fight the secession movements which were then plaguing the Teamsters union. Although the IBT has a relatively large number of locals under trusteeship, they are ordinarily set up by the president with the consent and frequently under the supervision of the member of the general executive board in the region. Only in rare cases has the union been stopped from using this procedure by

court action. In the early part of 1957, 108 locals out of 876, or more than 12 percent, were subject to trusteeship; of these, 27 were under such control for more than 5 years.

In practice, the provision requiring the president to approve contracts is inoperative. The union has conceded that it is not even aware how many collective bargaining agreements its locals have negotiated. The president undoubtedly would create internal dissension by exercising a power which was always available to him but which he did not use in the past. Local autonomy and historical prerogatives are still jealously guarded.

Beck began his regime in 1952 with a record of having substantially consolidated and centralized the work of the IBT on the West Coast. He planned to gather more power in his own hands than had been held by Tobin by fostering policies intended to integrate local affairs and curtail local autonomy. He therefore completed the task of dividing the United States into conference areas during his first year in office. But his hopes of shifting some of the authority flowing to the conference into the international office were not fulfilled.

Although the Teamsters union is more centralized today both with regard to structure and policy than it has ever been in the past, local autonomy, particularly in some of the larger metropolitan areas, is still pronounced. Further structural evolution, however, seems destined to complete the process of integration in a short time. Today, too, the enlarged jurisdiction and huge membership of the IBT open the door to the emergence of a general labor union if those heading the organization feel that goal to be desirable.

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Contemporary Structural Changes in Organized Labor

THE CHANGING DISTRIBUTION of job territory among the national unions reflects the continuing search by each union for the kind of structure that would maximize what Selig Perlman and others called "job control." The purpose of this paper is to suggest, at least as a working hypothesis, the nature of this structural trend, and to outline the factors primarily responsible for it.

Space limitations make it impossible to recount the assumptions that are implicit in this paper. I will simply emphasize two of the most obvious: (a) that unions will continue to function chiefly as agencies for collective bargaining; and (b) that no abrupt and drastic change will take place in the legal, economic, and social climate.

Tendencies Toward Enlarged Jurisdictions

The hypothesis is that, as the years go by, the bulk of organized labor will fall within the jurisdiction of a smaller number of national unions. Each of these large unions (ranging in size, say, from 1 million to 3 million members) will be multi-industrial in scope, and will have within its established jurisdiction a wide range of occupational groups. Five considerations support this hypothesis:

Broadening the Narrow Craft Base. Amalgamation of related crafts has been a basic historical trend in organized labor. The percent of national unions that fall within the pure craft category was estimated by Ben Stephansky to have declined from 21 in 1915, to 9 in 1939, and to 6 percent in 1951. On a membership basis, the relative decline has been even greater.

Among the major causes of amalgamation are: (a) the need to rely on other crafts for strike support (and the corresponding obligation to reciprocate); (b) potential employer use of closely related crafts as strikebreakers; (c) intercraft mobility and the need for its regulation; (d) mechanization of craft operations, and the extension of jurisdiction to cover new jobs created by technological development; (e) employer demands for "one bargain" with related crafts; (f) industrial organization to protect a nucleus of skilled work-

ers, which was often provoked by Congress of Industrial Organizations competition with established American Federation of Labor unions; and (g) the need to attain a workable or more effective scale of operation. Amalgamation may also be encouraged as a defense against competitive multi-craft organizations with broader jurisdiction.

More Craft Autonomy Within the Industrial Union Framework. The last decade has witnessed some important changes in the legal and economic climate affecting craft representation. The generally high levels of employment and output and the tight market for many skills have led some groups of craftsmen to wonder whether their inherent bargaining power is being given full recognition within the industrial unit. Meanwhile, the Taft-Hartley Act of 1947 reinforced a craft severance policy toward which the National Labor Relations Board had already begun to turn in 1946. The proportion of total employees represented by unions in many mass-production industries began to decline as technological progress and related developments increased the percent of office, technical, and professional employees.

In this context, many industrial unions have given increasing consideration to craft groups in the course of collective bargaining. More dramatic, perhaps, because of its formal character, was the adoption by the United Automobile Workers, at its last convention, of constitutional amendments to permit direct craft representation in collective bargaining and in "the negotiation of supplementary agreements dealing with their special problems on which they have the right to act."

Occupationally oriented groups seeking members among the employees of the large industrial corporations are forcing this kind of structural modification. [For example,] the Society of Skilled Trades and the more recent American Federation of Skilled Crafts hope to make significant incursions into UAW territory when present automobile contracts cease to operate as a representation bar. The AFL-CIO No-Raiding Agreement is limiting such activity by the signatory unions.

Multi-Industrial Expansion. For a number of reasons, the important "industrial" unions are actually multi-industrial in scope, and this characteristic is going to persist. First, of course, there

is the obvious difficulty of defining an industry. As illustrative of this problem, out of a total of 33 arbitration cases arising under the CIO Organizational Disputes Agreement from April 1952 to date, 23 involved problems of jurisdictional definition, in the following categories: (a) input versus output, i. e., jurisdiction based on raw materials versus the destination or nature of the output; (b) multiproduct plants, i. e., the plant makes a number of products which fall into the theoretical jurisdiction of more than one union; (c) borderline products, e. g., jewelry boxes (jewelry or box industry?); (d) single product in two jurisdictions, e. g., packings made of rubber and/or fiber (rubber and textiles); (e) no established jurisdiction; and (f) changes in products. Apart from such difficulties of definition, there is the growing importance of the multiplant corporation operating in a variety of industries as defined by product categories. Unions typically strive to attain companywide organization so as to maximize bargaining strength. This makes for multi-industry unionism. Also, the stream of new raw materials, new processes of manufacture, and new products continuously upsets established jurisdictional boundaries. When the same union continues to represent the affected workers, its multi-industrial character is enhanced.

Strategic alliances also promote multi-industry unionism. Many groups, for example, look to the strategically placed Teamsters for support, especially in retail and service industries.

The Advantages of Bigness. It seems apparent that size as such confers some advantages. The large union can more readily allocate resources to organizing the unorganized, to research, to legal counsel, to servicing the membership. Its capacity to assist strikers, whether through strike funds or by assessments on employed members, is likely to be greater. It can attain a better geographic distribution of its facilities. By "getting there first" it has a better chance to recruit and keep new members, especially in jurisdictionally ambiguous situations, and it can organize more persuasively because of its reputation and its capacity to render service. The large union also carries more weight in the labor movement as a whole, which can be important in connection with jurisdictional battles. There can also be disadvantages associated with size. They do not

appear to present significant obstacles, however, to the growth in relative importance of the large national union.

The Process of Structural Adjustment. The merger of the AFL and CIO, while a significant historical landmark, is but one manifestation of a general anticompetitive trend within organized labor. One fact of the merger that is particularly pertinent is the formal recognition in the AFL-CIO constitution that "both craft and industrial unions are appropriate, equal and necessary as methods of union organization" (Article II, 2). Another significant part of the constitution is Article II, 8, which lists among the objectives and principles of the federation:

To preserve and maintain the integrity of each affiliated union in the organization to the end that each affiliate shall respect the established bargaining relationships of every other affiliate and, at the same time, to encourage the elimination of conflicting and duplicating organizations and jurisdictions through the process of voluntary agreement or voluntary merger in consultation with the appropriate officials of the federation; to preserve, subject to the foregoing, the organizing jurisdiction of each affiliate.

In addition to [the AFL-CIO No-Raiding Agreement, the CIO Organizational Disputes Agreement, and the AFL Internal Disputes Plan,] there has been a rash of bilateral interunion agreements during the past decade covering jurisdiction problems, joint action in organizing or bargaining, and no-raiding. Under the administration of the Building Trades Department of the AFL (now AFL-CIO), the National Joint Board for the Settlement of Jurisdictional Disputes is in its 10th year of operation, and has achieved remarkable results in this period in spite of complex problems.

All in all, the national unions are demonstrating increasing willingness to settle jurisdictional differences without resort to direct economic action. Perhaps this is because the large unions can afford to, while the smaller ones have little choice. Undoubtedly, the futility of persistent raiding activities, the waste of jurisdictional stoppages, and increasing public sympathy for the employer caught in the middle of jurisdictional conflict, have all made a contribution. Meanwhile, where persistent jurisdictional difficulties remain, the AFL-CIO is committed to encourage voluntary agreement or merger.

Greater reliance on peaceful methods, including arbitration, will not hamper the larger unions over

the long run. The CIO Organizational Disputes Agreement, for example, includes as criteria which the arbitrator may consider, "The extent to which each of the unions involved have organized (a) the industry, (b) the area, (c) the particular plant involved," and also "The ability of each of the unions to provide service to the employees involved." Consider, too, the recognition accorded to "organizing jurisdiction" in the AFL-CIO constitution. This means that any union may constitutionally keep what it has.

The union which can commence organizing activity first, which already has substantial membership in the area or industry, and which can promise good services to the prospective members, is likely to fare relatively well in jurisdictional disputes which do not involve the obvious violation of another union's well-defined territory.

Conclusions

Powerful forces are encouraging the predominance of large multi-industrial unions in which some substantial measures of occupational autonomy is granted to skilled craft groups, office workers, professional employees, and technicians. The craft unions have characteristically broadened their occupational bases, and in many instances, have also organized along industrial lines. Industrial unions, on the other hand, are giving increased attention to the heterogeneity of their memberships. The ambiguity inherent in attempts to delineate industries, as well as the growth of the multiplant corporation and the widespread adoption of product diversification as a business policy, all encourage multi-industrial unionism. Finally, the advantages associated with size as such reinforce the ability of the larger unions to expand, relative to smaller labor organizations.

Structural diversity will persist, and the large unions will continue to face competitive menaces from a variety of small organizations pulling in various directions as underlying pressures change. But the large unions—like our two major political parties—have demonstrated that they possess the acumen and flexibility to adopt the structural modifications that will permit them to increase their status within the labor movement as a whole.

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Methods of Evaluating a Group Insurance Program

NEGOTIATIONS in the United States steel industry in June 1954 were critical to the parties. Negotiations on the contracts, expiring at midnight, June 30, 1954, represented the opening up of all issues—wages, the working rules in the basic agreement, insurances, and pensions. These expiring contracts had remained substantially unchanged for 5 years (except for wage reopenings, for the most part). No changes in the insurance or pension contracts had occurred during these years, although the Korean hostilities and the accompanying inflation had had its impact upon price levels and upon the costs of hospital, surgical, and medical services.

Inland Steel Co. was most concerned about the insurance negotiations because the insurance benefits at Inland were different from those in effect at most other major steel companies. Generally, among the major steel companies, the 1949 insurance contracts provided for the companies and employees to each contribute 2.5 cents per hour worked into a fund. The fund would then provide life, accident and sickness weekly benefits, and hospital and surgical insurance for employees and dependents to the extent made possible by the monies accumulated.

Inland, on the other hand, in 1949, continued its previously existing insured plan to provide agreed upon benefits fixed for the life of the contract (5 years), with employee contributions at a fixed rate for the duration of the contract and the company to pay the balance of any premium required. The benefits provided Inland's employees were different and somewhat greater than those found at most steel companies and the employee and company contributions also were different.

If a precedent-setting pattern was set in the steel industry, it could result in Inland's being asked to contribute in cents per hour for improved insurance benefits an amount similar to that negotiated by other major companies. Our anticipated problem was, then, how best to spend or use whatever increase in money was agreed upon in collective bargaining.

Objectives of the Study

In December 1953, a study of Inland's insurance and pension plan was requested by management. The study embraced the total insurance and pension program, but in this paper, only the methodology employed in evaluating the hospital, surgical, accident, and sickness claims experience is discussed.

We decided to attempt to find out how the consumer of [these] benefits fared under the benefit program which provided his coverage. We studied the claims filed by employees of the company for themselves as well as their dependents.¹

Factors Analyzed

The following 30 factors were analyzed:

1. Plant at which employed: This enabled us to develop the information for each plant and [to provide] information helpful to negotiating levels of benefits in each area suitable to the needs of that area or plant.

2. Number of cases per employee: This gave some notion as to multiplicity of cases in the year.

3. Number of hospital, surgical, accident, and sickness claims per employee.

4. Year of employment: The basis for calculating the employee's length of continuous service.

5. Year of employee's birth: Used to determine the employee's age at the time of the occurrence claimed.

6. Sex of employee: We related this to types of occurrences and to proportions filing claims.

7. Occupational group: Wage, clerical, supervisory, or executive.

8. Nature of illness, disability, accident, operation, or obstetrical procedure: Each such occurrence was coded, using a 3-digit modification of the World Health Organization's Manual of International Statistical Classification of Diseases, Injuries, and Causes of Death, 6th rev., I, 1948.

¹ EDITOR'S NOTE.—The analysis was developed on the basis of a sample of 887 cases in the 1 large plant and 2,202 cases obtained through a census of the company's 8 smaller units. Adding the weighted sample to the data obtained through the census resulted in a total of 9,298 cases, representing approximately 8,703 employees.

The term "case" is applied to a group of 1 or more claims relating to 1 accident or illness. Only cases "which had been paid as completed cases" in the calendar year 1953 were included. Thus, cases begun in 1953, but not paid by the end of that year, were excluded. Also, some cases which began in 1952, but which were concluded in 1953, were studied. The paper presents a detailed description of methodology.

9. Frequency of single and dependency coverage: This gave a distribution of cases among those employees who covered only themselves (mostly single employees) and those who covered dependents. We related the claims incidence to the coverage.

10. Person benefiting: The employee, his spouse, or dependent children.

11. Confinement or treatment as in-patient or out-patient: Costs and other distributions vary greatly upon this factor.

12. Date of hospitalization, surgery, or accident and sickness: Designed to provide some notions as to seasonality of claims.

13. Total days in hospital: Duration of hospital stays was a clue to the likely incidence of prolonged and thus costly hospital confinements. (It turned out to be low.)

14. Charge per day in hospital: Daily room and board charges varied from hospital to hospital, region to region. With an indemnity plan, it was important to know actual costs. A hospital-rate survey was also made to compare charges for ward, semiprivate, and private room accommodations with these costs.

15. Total charges in hospital including additional or "extras" charges: The total cost to the employee for the hospital stay was related to the next item and was one of the more important factors cross-tabulated.

16. Total hospital and "extras" benefits paid: The differences (if any) which the employee had to pay out of his own pocket were measured.

17-22. The "extras" charges for anesthesia, operating room, laboratory, X-ray, miscellaneous, and total "extras" charges: Each type of additional charge in the hospital was analyzed to see whether any of them or the totals were out of range of the benefits provided.

23. Name and location of hospital: This provided the list of hospitals used most frequently by the covered group and the basis for isolating geographical differentials in hospital costs, duration of hospital stays, etc.

24. Surgical fee charged: Related to the nature of the occurrence and the benefits paid.

25. Surgical benefit paid: The differences between the cost and the benefit provided were measured. (The greatest imbalance in the plan was found in this area.)

26. Weekly amount of accident and sickness benefit paid to employee: The plan provided benefits related to earnings. A tabulation in this area was important since we wished to see which income groups made the most and which made the least use of these benefits.

27. Total number of days of accident and sickness disability: Information in this area would provide clues as to potential costs of extending the benefit period beyond 26 weeks.

28. Marital status of accident and sickness claimants: This did not turn up anything of consequence.

29. Number of doctor's calls at home, office, or hospital, on accident and sickness claims: At the doctor's office (usually 3-5 calls per case); at the hospital (6-10 calls most common); and at the employee's home (usually 1 call).

30. Date claims were filed and paid: This provided a check on the speed of administration.

Major Findings

The major findings in this study were as follows: The characteristics of the employee claimants as regards sex, age, length of service, and occupational group were generally similar to those of the work force as a whole. Differences were relatively minor.

Over one-third of those insured under the plan had one or more claims in the year. The utilization of the hospital, surgical, and accident and health insurance to this extent suggests that these coverages were a significant part of the employee benefits program. Therefore, changes in the coverages and the quality of administration of the program would be expected to be matters of prime interest to the employees as well as their union representatives.

The costs of hospitalization and surgery generally exceeded the benefits paid for a substantial number of employees and their dependents. The larger differences between the costs and benefits occurred more frequently among the high-cost cases which involved prolonged hospitalization, many "extras" in the hospital, and costly surgery. This suggests the desirability of a review of this experience in relation to major medical or catast-

trophe medical coverage for employees at various income or earnings levels.

The area in which the largest differences occurred, between the costs incurred and the benefits paid, was that of surgery. Hospital room and board and "extras" costs were more nearly matched by the benefit.

Raising the benefits to meet charges current at any one time would not, however, ensure that the gap between the employee's hospital and surgical insurance costs and benefits would be closed in future periods. The differences between costs and benefits found in this study of 1953 claims should not be assumed to have been the same in 1949 when the first insurance contract was negotiated. Similarly, the level of benefits negotiated in June 1954 may not be assumed to be such as to satisfy the needs in 1954 or later periods. To follow this relationship, continued study is necessary.

Nevertheless, the lag in benefits in the course of the 5-year insurance contract, when prices, costs, and incomes rose substantially, was apparent in this study of 1953 experience. Some improvement in benefits doubtless could have been justified for this reason alone.

Conclusions

The findings were useful in briefing management prior to negotiations as to the areas in which the program was most deficient. The findings were also reviewed with the union's negotiators to provide them with this same information. Jointly, then, the parties were able to devise the revisions in insurance coverage to substantially meet the needs in those areas which had been deficient.

The insurance contract negotiations in 1956 were similarly guided by another study and revisions were made effective on September 1, 1956. Our management apparently is convinced that we have made an important contribution in labor relations. If we have, perhaps this detailed description of what we analyzed, how we did it, why we did it, and what use we made of it will stimulate others to undertake similar studies.

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Labor Market Factors and Skill Differentials in Wage Rates

THIS IS A REPORT of research in progress rather than a final definitive statement. Its primary purpose is tentatively to identify factors significantly influencing skill differentials in wage rates.

Scope of Study

This study uses the metropolitan region as the basic unit of analysis. A metropolitan region consists of the metropolis, usually a large central city; the surrounding belt of suburbs; and that rural hinterland which has a high degree of interrelationship with the economic functions carried on at the center.

Metropolitan regions as economic units have an economic structure which is characterized by the production of goods and services for the indigenous population, and for export to other metropolitan regions. The economy of a metropolitan region is not closed, for its dependence on other metropolitan economies and the rest of the world expresses itself in the imports and exports of goods and services and the complementary flows of payments.

One of the most important factor markets in such a metropolitan economy is the market for wage workers. This market is particularly appropriate for analysis because the boundaries of the market approximate the limits of the metropolitan region. The metropolitan labor market is linked with the rest of the metropolitan economy by a complex system of economic and institutional relationships. Likewise, the metropolitan economy has a correspondingly complex set of relationships with the rest of the national economy.

In this study, 39 labor market surveys made by the Bureau of Labor Statistics in 1951-52¹ provide the framework of wage data. Comparability of wage data between areas has been enhanced by the use of occupationally standardized wage rate averages. In addition, estimates of the degree of unionization in each area are derived from the same sources. Other measurements of the characteristics of standard metropolitan areas (SMA's), from the 1950 Census, were made congruent.

The Differential Concept

A preliminary requirement of this analysis is the determination of the appropriate concept of the skill differential. One elementary distinction relevant to the use of absolute versus relative skill differentials is the differing nature of time trend data and cross-section data. With rare exceptions, money wages have fluctuated over time, and the longer the period examined, the more important has become the translation of money wages to real wages. For cross-section data, the "money" problem is less important but not completely absent even when the comparisons are to be made within the same monetary system. The differences attributable to the "money veil" are small, and do not account for much of the variation which is analyzed in the study. Therefore, absolute rather than relative differentials are the basic analytical concept in this study.

The use of absolute differentials is additionally justified by a comparison of the relationships existing between area wage levels and each type of differential, on a scatter diagram. The association of relative differentials and the levels of area wage rates is clearly apparent in these data. Absolute differentials [on the other hand, appear to be independent] of the wage level.

Factors in Skill Differentials

As an introduction to the methodology used in this study which will facilitate the comprehension of the subsequent findings, consider the following regression equation:

$$(1) \quad W = 49.36 + .54Z_1 + 1.00Z_2 + .28Z_3 + .21Z_4$$

where W is the SMA wage level in cents per hour; Z_1 , the percent of wage workers covered by union contract in the SMA; Z_2 , the log SMA population (relative size); Z_3 , the percent of SMA employment in durable-goods manufacturing; and Z_4 , the ratio of per capita rural income to per capita urban income in the metropolitan region.

The coefficients of the variables in this equation are estimates of the parameters computed by the least squares criterion. These coefficients may

¹ EDITOR'S NOTE.—The study for each of the 40 areas surveyed in 1951-52 was published as a separate bulletin. For a list of the areas surveyed and the respective bulletin numbers, see *Monthly Labor Review*, December 1952, p. ii. (The area excluded from the present study was Rochester, N. Y.)

be directly interpreted as the increase in SMA wage level associated with a one unit increase in the variable involved. Specifically, an increase of slightly more than one-half cent in the SMA wage level is associated with a 1-point increase in the percent of unionization; about one-quarter cent increase in the SMA wage level is associated with a 1-point increase in the percent of employment in durable goods; and so forth.

Applying the same kind of methodology to the skilled and unskilled wage levels in metropolitan labor markets produces the following equations:

$$(2) \quad S = 114.57 + .46Z_1 + 1.16Z_2 + .04Z_3 + .00Z_4$$

$$(3) \quad U = 37.15 + .47Z_1 + .72Z_2 + .40Z_3 + .30Z_4$$

$$(4) \quad S - U = 77.42 - .01Z_1 + .44Z_2 - .36Z_3 - .30Z_4$$

where S is the SMA skilled wage level in cents per hour; U , the SMA unskilled wage level in cents per hour; and $Z_{1,2,3,4}$ as defined in the previous model.

In equations (2) and (3), unequal values of the parameters reflect the differing structural importance of the independent variables in explaining the skilled and unskilled wage levels. For example, practically all the explainable variation in the skilled wage level is attributable to variation in the degree of unionization and in SMA size. For the unskilled wage level, the wage effects attributable to differences in industrial composition and rural-urban income ratios are substantially larger than for the skilled wage level. Unionization has about the same effect on both skill levels, and SMA size contributes less to the unskilled wage level than it does to the skilled level.

The difference equation (4) describes the structural influences that bear upon absolute skill differentials. Most significantly, equation (4) suggests that skill differentials are simultaneously subject to widening and to narrowing influences. Absolute skill differentials will widen or narrow as changes occur in the composition of variables used in these models.

Differences of about 25 percent in SMA size widen the skill differential by almost a half a cent. (The range of SMA populations varies from less than 250,000 to almost 7 million.) The coefficient of [this variable in] the skilled wage equation is about 60 percent higher than that of the unskilled equation. Because the skilled wage level is

roughly this same ratio above the unskilled, this relationship signifies that wage effects of SMA size are proportional to the level of the occupational wage rates involved. For the same change in SMA size, the skilled wage level will change about 60 percent more than the unskilled wage level. Thus, the absolute skill differential widens proportionately, and relative skill differentials will be roughly constant for SMA's of differing sizes.

In contrast to the widening effect of SMA size variations, skill differentials narrow as the industrial structure of the regional economy includes more durable-goods manufacturing. This narrowing is primarily the effect of significant upward adjustments in the unskilled wage level in association with increased proportions of durable-goods manufacturing, rather than the result of correlated adjustments in both wage levels.

An additional variable that accounts for a narrowing of skill differentials is the rural-urban income ratio. This variable also contributed to the narrowing primarily by raising the unskilled wage level.

Finally, the effect of varying degrees of unionization on skill differentials is neutral. Variations in the proportion of unionized workers change the levels of both skilled and unskilled wage rates by the same absolute amount.

What is the significance of the size of the SMA as an explanatory variable in these models? SMA size is merely an index of other metropolitan attributes which are the real variables behind the numerical relationship. Large communities can support highly specialized services and are linked with other markets to a greater degree than smaller communities. Efficiencies of marketing and of transportation develop from the higher level of agglomeration. Access to specialized labor is another manifestation of economic efficiency in larger SMA's.

A related hypothesis involves the increasing proportions of tertiary pursuits in larger centers. The proportions of workers available for unskilled and semiskilled labor are subject to alternative occupational opportunities in service, administrative, and distributive activities. In contrast, the proportion of skilled workers does not appear to be related to SMA size. Differentials in demand for differing levels of skill as SMA size changes may account for the variations in skill differentials.

Despite the congestion and social costs associated with large urban centers, the metropolis is an efficient economic unit and large metropolitan centers are most efficient. These external economies of scale translate themselves into lower costs and generate limited forms of monopolistic power based on the locational advantages of large metropolitan areas.

These significant hypotheses are among several which will be subjected to more intensive examination and analysis. However, a definite point of view pervades the interpretation of SMA size and its influence on skill differentials. This relationship, it is felt, reflects a pattern of fundamental changes in industrial structure which take place as the metropolitan economy develops.

The association of changes in skill differentials with differences in the proportion of durable-goods manufacturing also generates interesting hypotheses. Let us boldly assume that the proportion of durable-goods employment in the metropolitan region is a crude index of the propensity to export. Regions with high export propensities generate larger inflows of payments which, when distributed through the metropolitan factor payment mechanism, raise the average economic well-being in some sense. The significant hypothesis suggested by this study is that the effect is accomplished by raising the lower skill and income levels.

A similar effect can be noted with regard to the rural-urban income ratio. As per capita rural income increases in relation to per capita urban income in the metropolitan region, the lower skill and income levels adjust upward. That this reflects actual and potential mobility to the metropolitan labor market is a reasonable conjecture. It corroborates empirical studies of geographical mobility which show that moves of relatively short distance predominate. It is consistent with the aggregative pattern of population readjustment which is depleting the rural population and augmenting the urban population.

Professor John T. Dunlop, in pointing to tasks in contemporary wage theory, suggests that an understanding of wage structure is paralleled by a delineation of the economic development that characterizes the economy in question. Within the framework of this analysis of metropolitan regions are imbedded many of the clues to a more general theory.

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Wage Determination in a Nonunion Labor Market

THIS STUDY¹ [investigates the components of] wage determination for female clerical workers in the fields of banking and insurance, as represented in the Boston metropolitan area. We selected for study an area of white-collar employment partly because there has been little previous wage research in the white-collar field and this occupational group is important and growing. In addition, the conditions that prevail here offer important contrasts to those encountered in most recent wage studies, which have concentrated on collective bargaining in manufacturing industries. By providing a different point of reference, examination of this predominantly female and nonunion type of situation may help in further development of wage theory.

We saw our research problem as one of identifying forces on both the supply and demand side of the labor market in terms of specific institutional and behavioral parameters. We wished to concentrate on a limited number of industry groups, so that we could grasp a particular set of demand conditions and, insofar as possible, trace these through the wage policies and actions of a related group of firms. At the same time, we wanted to get from our study an understanding of the labor supply conditions facing these firms.

The banking and insurance industry groups are of quantitatively significant proportions in the Boston area and the firms in them can be matched with our worker category, since clerical employment dominates these industries.

Wage Theory as a Guide to Research

[Recent developments in wage research and thinking] have tended to weaken any theory of wage determination based on the interaction of supply and demand in a market of many buyers and sellers, where accurate information is widely shared and where people and institutions act independently and primarily in response to economic incentives. [However,] supply and de-

¹ The research reported here was supported by funds from the Sloan Research Fund of the School of Industrial Management and from the Industrial Relations Section, Massachusetts Institute of Technology.

mand still remain for us fundamental concepts to which research findings must be related. Obviously implied are rather complex concepts, which reflect the institutional and behavioral characteristics of the markets to which they refer.

Since there may be especially great ambiguity about the meaning of "labor supply," we shall discuss our view of this concept further. We want principally to point up the importance of differentiating between supply to the firm and to the market more generally. Supply to the firm may be expected to have certain special characteristics that set it apart from the market. Differences in firm supply conditions may reflect institutional pressures, psychological factors of various sorts, or the presence of a strong union. These factors can all be fed into a concept of worker tastes under varying conditions and they readily become part of the supply concept, as soon as we differentiate between the firm and the market in a geographical or total labor force sense. It is important to emphasize, however, that the supply curves of the various firms in an area are usually interrelated with each other and with the labor force dimension of the area. Conceptually, however, we start with the firm and build the relationships from there on.

Sources of Data

Our detailed study has been based for the most part on information supplied by 13 banks and insurance companies in the area and by 158 of their employees. The firms were selected to represent the banking, life insurance, and non-life insurance industries and the various sizes of firms operating in these industries. Each of these firms supplied us with a list of their female, non-supervisory employees from which a small number, varying with size of firm, were drawn on a random number basis.

We also obtained information from representatives of private employment agencies, private clerical schools, public and parochial high schools, and from the Massachusetts Employment Service.

The time period under review, 1948-56, was one of generally full employment for clerical workers in the Boston area, though the situation in Boston eased perceptibly in 1949 and 1954. More particularly, this was a period of rising employment in the finance sector of the Boston

economy, reflecting growth in demand for their services, as experienced by 11 of the 13 firms covered by our research. This was also a period when wage rates were generally, though by no means uniformly, rising throughout the economy. Data compiled by the Bureau of Labor Statistics indicate clerical rates in the Boston area rose by 55 percent between 1948 and 1956, a gain larger than for manufacturing production workers.

Banking and insurance firms are service rendering rather than goods producing. Characteristically, wage costs are small in relation to the total amount of money handled, but they are large in relation to the cost of the service rendered. Thus, wage rates, as a central element in wage costs, are of far more than passing importance to banks and insurance companies.

Despite many broad similarities, companies in this sector also vary in important respects. Some are stock and others mutual companies; the public's stake in the efficiency of their operations varies; some are quite small in size and others are huge in the scale of their operations; the markets they serve vary in rate of growth, number of competitors, and in other ways. These and other variations are reflected in their operations in the labor market.

Tentative Findings

Our findings fall into three categories: (1) reactions of firms to the conditions of labor supply; (2) the labor market behavior of female clerical employees of Boston banks and insurance companies, as represented in our sample, and the role of various market intermediaries; and (3) general observations emerging from our data.

The Firms. The firms responded to a generally tight labor market not only in terms of explicit policy changes but in terms of a rather complete reevaluation of their procedures and organization for performing the personnel function. With the exception of 1 or 2 of the smaller firms, the following changes were evident in all the firms studied: Advent and expansion of personnel departments; relaxation of secrecy about wage and other personnel practices and cooperation on information sharing with other companies; development of new methods of recruiting labor; and increased efforts to use nonwage appeals to clerical workers.

The firms have also reacted, of course, with their wage policies; but here again the reaction has had several dimensions. Ten of the 13 firms, including all the larger ones, have formalized their wage structures in an effort to deal with internal inequities and to maintain control over the relationships among various job categories. Their most pressing problem, however, has been at the hiring and lower job levels, since turnover is great among the young females that comprise the bulk of their labor force. The firms all seem to have the same general policy—"pay whatever the market forces you to pay"; but this policy is implemented in a variety of ways. Some firms take what might be called an analytical approach, periodically surveying the rates paid by a designated group of firms and establishing their own rates accordingly. Other companies took what might be called the specific-pressure approach to testing the market. In effect, what they said was, "Before we will raise our hiring rates, we must have proof from our own experience that our present rates are too low."

Still another dimension of wage policy concerned the quality of new employees. The employers seemed uniformly convinced that, given a band of conceivable hiring rates where the top was about 110 percent of the bottom, the quality of the girls you could hire for the top rate would clearly be superior. Assuming this to be fact, employers pursued different quality strategies: Some preferred to take their chances with lower quality for the bulk of new hires, in effect lowering their standards for an acceptable employee, redesigning some jobs, and relying on special efforts to fill more demanding positions; others preferred to be at the top of the range, feeling that they gained more flexibility in making job assignments and more selectivity in promotion decisions.

The overall impression that emerges from our study of employer practices and policies is one of firms basically oriented to conditions in the local labor market. They have conscious policies of paying the price given by the market and, while strategies vary, they have worked out methods for making practice conform reasonably well with policy. In addition, firms have enlarged their potential labor supply by changing their policies toward hiring of older women, married women, certain ethnic groups, and Negroes.

Employees and Market Intermediaries. The female clerical workers who predominate in banking and insurance have a high rate of voluntary turnover. Two aspects of this high volume of job seeking and taking are of special interest to us: The amount of information acquired by employees about job opportunities and the significance to them of the economic dimensions of their labor force activities. First of all, it may be noted that almost half the jobs taken by our sample of workers were located through reasonably well-organized information pools: high school guidance counsellors, public and private employment agencies, secretarial schools, and newspaper advertisements. These sources, almost by their very nature, provide their users with the knowledge that there are alternatives, if they should exist. Further, especially when private agencies, secretarial schools, and high school guidance counsellors are involved, they provide job seekers with some standard of comparison, some norm of what should be expected in the way of weekly pay from a job at the time period in question. Beyond this level of knowledge, a significant minority of girls, somewhere in the neighborhood of 20 percent, knew about jobs other than the one they took and had at least a general idea of the economic dimensions of the job they took. To be sure, the bulk of the workers here did not make anything remotely resembling a systematic exploration of the labor market. But in many instances, some market intermediary did that for them, and in a substantial minority of instances, workers conducted some search on their own.

It is apparent that the girls we interviewed place a high value on their working surroundings and on the status of the work they do and the organization they work for. Most of them seem to have consciously rejected factory work, selling, or even in some cases, office work for a manufacturing concern.

Within the assumptions of this preference structure, however, economic incentives appear to play a significant role. According to our employee interviews, about 20 percent of those shifting jobs lined up another before leaving the one where currently employed and, in over two-thirds of the job shifts for which we got data on salary comparisons, the job shifter increased her salary. And a substantial minority, again about 20 to 25 percent, emphasized salary and general financial

considerations as they discussed such subjects as their reasons for entry into the labor force and for leaving and taking specific jobs, and their notions of what made for a good or a bad job.

All in all, then, the picture that emerges from our examination of the supply side of this labor market is one of a high volume of job seeking, where at least a significant minority of workers have the knowledge and economic incentives in a reasonably tight labor market to punish those firms whose salaries are below average and reward those whose hiring rates are on the high side. Market intermediaries play an important role in this market, as contrasted with industrial or factory labor markets. They serve as a pool of knowledge and they tend to channel the better girls to the better openings. Thus, they add an element of economic rationality to the market.

General Observations. We have two concluding observations to make about this particular labor market. First of all, it seems clear that this is a situation where price does respond to supply and demand forces in the local area. We can identify here the expansion of demand for clerical labor in the Boston area and by specific banks and insurance companies, coupled with a relatively inelastic supply of labor to the market as generating the pressures that led to observed changes in local wage rates. Further, while we are not saying that we have here a perfectly competitive market, supply to the firms studied appeared to be quite elastic at the lower job levels.

Second, this appears to be a situation where wage rates are flexible with respect to changing labor market conditions. The high volume of turnover for particular firms and consequent importance of the hiring rate, the orientation of firms toward paying no more than is called for by the supply situation, and the lack of any contractual obligation to a specified rate for new employees, mean to us that rates in this market are not so rigid as in the case of industrial labor markets where collective bargaining is the transmission system for economic forces.

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Union Efforts Toward Greater Membership Participation

WHAT PEOPLE THINK is the relationship between union members and union leaders may be just as important for some problems (e. g., political issues and resultant public policy) as the relationship which actually exists. Thus, an important question which derives from what may be the community's lack of understanding about the internal conduct of trade union [affairs] concerns the [matter] of what labor officials are doing to combat what may be a prevalent notion of union oligarchy. One facet of the question, not discussed in this article, has to do with efforts of union officials to present themselves in a favorable light to the community through participation in public forums, community service activities, etc.

The discussion in this article has been directed to a study of precisely what, if anything, trade union leaders are doing to encourage rank-and-file determination of union policy by taking effective action to create rank-and-file interest in the business of unions through particular efforts at stimulating the seemingly pedestrian concept of membership attendance at local union meetings. The [method] used was to address the question to various officials of 130 national unions,¹ to the research director and/or education director where such offices existed, and to elected officials where they did not. The 57 responses [received] were thought to be sufficient for introductory analysis since they covered many of the important variables such as union structure, affiliation, size, and geography.

The survey letter was an open-end inquiry, indicating the nature of the study and requesting information regarding specific techniques for promoting rank-and-file determination of union policy through increased meeting attendance which were known by the responding official to be practiced at the local level by some local affiliates, and/or devices encouraged through educational programs by national unions, which were designed to be incorporated into the pattern of local union operation.

¹ Educational campaigns of which this problem is one facet are conducted primarily from the national union level and are directed toward local union leadership.

General Observations of Union Leadership

The general nature of the prefatory comment of the respondents, by way of introducing the inertia-breaking activities of several unions, can be categorized into three areas of opinion: (1) Some degree of skepticism that meeting attendance is a pertinent measurement of rank-and-file interest, or of the penetration of democracy; (2) a general defense of the democratic structure of unions, particularly as contrasted to other types of economic and political organizations; and (3) the idea that the successful continuation of unionism is dependent upon considerable membership interest and discretion.

Meeting Attendance as a Pertinent Measurement. Within the first category, there were, of course, several shades of opinion and many contrasting ideas. A research director of a large craft union took the position that the basic determinants of member participation are the laws of the organization, whether or not they are permissive of democratic control. If so, then member interest and participation follows naturally from this protective device. The role of leadership within this context is to educate the rank and file for greater responsibility by way of committee and even leadership assignments. This thesis of automaticity of participation, given the necessary constitutional protection, was not mentioned by any other respondent.

More typical were the comments of research directors of 2 industrial unions, 1 small and 1 large. The former took the position that typically small meeting attendance was the result of the fact that a faithful few are willing to accept the responsibility and the work of union business, while others are willing to delegate this continuing authority. This he interpreted not as clique control but simply as the inevitable result of personality differences. His statements were in substantial agreement with those of the other industrial union research director, who suggested that this created the problem not of bossism but of how to stimulate enough interest in union affairs to equitably distribute the workload of committees, stewards, etc.

A leader in the needle trades [interpreted] typically small attendance as evidence that the rank and file is for the most part satisfied with

present leadership and, except in times of unusual occurrences, is happy to delegate to existing leadership the responsibility and the authority of conducting union business. A suggested corollary was that continually high attendance might indicate membership suspicion of the conduct of union affairs.

A shade of this opinion was voiced by many other respondents: during the normal course of affairs, membership does not see any necessity for regular presence at meetings but will react to any problems in contract negotiations, grievance procedure, automation, etc., with a continuing and often vocal upsurge in union meeting interest.

Democracy in Unions and Other Institutions. Again, respondents analyzed the general area with some differences in approach. Several emphasized the essential similarity of the problem of insufficient [membership] interest [to that in other] voluntary organizations—church, fraternal, and political groups at city, State, and national levels. While lack of interest has been traditional in these organizations, many respondents were of the opinion that a double standard of value allows other groups to escape public criticism while unions wrestling with the same problem are accused of autocratic bossism. The research director of one industrial union suggested that the double standard stems from labor's essential status as a protest movement and that it necessarily arouses antagonism in performing its functional duties.

[Comments comparing] the democratic practices of unions [and] business firms mentioned again a double standard of judgment, as reflected in the criticism of unions of occasional examples of oligarchy, but no criticism of business despite the continued separation of corporate ownership and control. The reasons for this were again found in the generally sympathetic climate within which enterprise functions, and the often hostile environment created for and by the labor protest movement. Rank-and-file attendance at monthly meetings [was even compared] with shareholder attendance at annual meetings.

Dependence of Unionism Upon Membership Support. A few officials stated that the effectiveness, and thus the maintenance of labor unions, will ultimately depend upon the voluntary interest of the

union membership. Most [of them] were encouraged by the increasing educational efforts of national unions to increase the effectiveness of local union leadership and to make it aware of the problem posed by apathetic members. Also several called attention to the fact that active support by the membership is nurtured by the very structure of unionism, based as it is upon the local.

While this attitude expresses confidence in the basic democratic structure of trade unionism, there was little in the language of most respondents which suggested complacency in the face of membership indifference. Rather, most were anxious to discuss the possibility of positive action by union leadership which could inject new habits of participation into the traditional mold of member apathy.

Specific Devices to Encourage Participation

In analyzing the specific devices employed by national and local union officials to maximize the area of member discretion in union policy, an attempt has been made to consider the direction which national union leadership is taking in its thinking about the problem.

The replies to the inquiry can be divided into two general systems of democracy promotion: (1) compulsory techniques whereby some punishment is levied against nonparticipating members; and (2) voluntary techniques which are characterized by positive efforts at the local and national level to educate members to the advantages of active participation, and efforts to make that participation more attractive.

A significant number of replies indicated that compulsory devices, while used as a partial remedy, were being discarded as a continuing policy. Some observers felt they were by their very nature inappropriate to the goal of creating interest in, as opposed to allegiance to, the local union. Also some respondents felt that the animosity created by money fines permanently removed the punished as potentially active local members.

Many varieties of fines and penalties have been attempted. While some United Transport Workers locals levied fines for unexcused absences, locals of the Marine and Shipbuilding Workers simply published the names of nonattenders in union newspapers. Locals of the Bakery Workers

attempted dues rebates for perfect meeting attendance, while the National Maritime Union made voting mandatory in elections and referendums. A local of the Photo-Engravers specified a minimum number of meetings which must be attended if money fines were to be avoided, while the Brotherhood of Locomotive Firemen and Enginemen treated absenteeism constitutionally by cancelling eligibility for union office in the event of chronic nonattendance. The Cement Workers international union sometimes withheld strike sanction if attendance at local meetings was very low when the strike vote was taken. Although there were other forms of fines and penalties, these typify the experiments mentioned in what may be a declining area of activity.

The second category of devices can be interpreted as a growing activity of the rapidly expanding educational offices of national unions. While it is not appropriate here to discuss the general increase in union education activity, it becomes pertinent when educational campaigns are addressed specifically to the problem of how to promote rank-and-file interest in the concept of unionism. Because most educational programs of national unions are directed at local union leadership, their attempt has been to discuss with these leaders the background of the problem. The International Union of Electrical Workers has sponsored a local leadership conference dealing with the importance of local meeting attendance, as has the Chemical Workers.

An important aspect of this educational campaign has been the publications of national unions directed to local leadership handling of rank-and-file apathy. The Rubber Workers published a pamphlet on how to reach the rank and file, dealing with successful leadership techniques at local meetings, and the American Federation of Teachers included a similar discussion in the manual published for local leaders. The Meat Cutters and Butcher Workmen issued a pamphlet entitled *Greater Membership Involvement in the Local Union Meetings*, and the Textile Workers Union, an Officer's Guide to Effective Union Meetings. The Building Service Employees International Union devised a questionnaire for local leaders, inquiring why meeting attendance had been poor and what should be done about it.

Efforts have been made by education departments and other union bodies to encourage par-

ticipation at local union meetings by strict adherence to parliamentary rules or other means to expedite the local business meetings. A local of the Hosiery Workers set a 1-hour limit on meetings in an effort to meet a specific criticism of the members; the United Stone and Allied Products Workers approached the problem by trying to insure maximum privacy for members when such things as officer elections or strike votes are on the agenda. The Chemical Workers made unusually extensive use of committees and committee reports.

Concern with the question posed here has not become a monopoly of union education departments. There exist ideas and efforts to maximize membership participation which are not related to the activities of union education offices as such. For example, many local unions have evolved a practice of specific-purpose meetings, such as meetings designed for briefing the membership on the status of contract negotiations. Some unions make geographic or time adjustments in order to accommodate the rank and file; many unions have special convention features designed to arouse the interest of the membership at large; some local unions seek to compel membership interest in the union by addressing themselves to the members' wives and providing incentives for the ladies to attend a social meeting after the business meeting which the member has attended at his spouse's insistence; and, of course, unions have also resorted to door prizes, lotteries, entertainment, or other forms of social activities to make the business meeting better attended.

Conclusions

Clearly it is dangerous to draw substantial conclusions based on information acquired through

soliciting ideas by personal correspondence. But at the same time if insightful analysis, as opposed to purely descriptive analysis, is to flow from this area of research it is useful to formulate certain hypothesis for other persons to criticize and test.

The major hypothesis formulated in the process of this study has been that the data tend to verify the [existence of] bifurcation within the leadership of the American labor movement.

The findings of this paper seem to indicate that a majority of current trade union leadership is striving at a conscious level to [reinvigorate] the organization with grassroots injections of democracy. But even by their own admission these leaders have not yet found the key; the search is a continuing one but is complicated by many factors, including a rising living standard which has considerably increased the competition for trade unionists' time. The responses of a considerable, although minority, number of leaders seem to indicate that they are losing faith in their own ability to arouse the interest of membership in the business of unions. Whether this will degenerate into a what's-the-use philosophy will depend to a certain extent upon the success of the still hopeful and always energetic majority of union leaders.

At the same time, however, a small but hard core of leadership, which is not oriented toward popular determination of union policy, continues to exert significant pressure on the economy and the attitudes of the public. Within the last 15 years, public opinion has seemingly been more heavily swayed by the activities of this minority than by the less spectacular functions of the democratically inclined majority.

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The Failure of Communication in an Organizing Campaign

COMMUNICATION between workers and union organizers who are seeking to establish a local union in an unorganized plant is a complex process subject to numerous interferences. A recent investigation of a union organizational campaign at a southern textile mill revealed that this process can break down without the participants becoming aware of it. The consequences in the case under review were the defeat of the union in a representation election.

The Textile Workers Union of America conducted an organizational drive at a southern mill in 1956. It met with immediate success. The union petitioned for a National Labor Relations Board election and by the date of the election 63 percent of the eligible employees had signed union [membership] cards.

The employer opposed the union's efforts to organize the employees. However, the employer's tactics did not include the more flagrant means of intimidating workers and frustrating their efforts at self-organization, e. g., violence or discharge of prounion workers.

The union organizing staff met with a committee of workers representing all departments in the mill during the week preceding the election to assess the progress of the campaign. The group was unanimous in its opinion that a substantial majority of the workers would vote for the union. The union's regional director reviewed the situation on the eve of the election and concurred in the general expectation of a decisive victory.

The result of the election—a defeat for the union—shocked the union's officers. The union's research department was directed to investigate in order to determine the reasons for the defeat.

Since the investigation was conducted after the event, it was therefore limited in scope. The union's regional director and the organizer in charge of the campaign were interviewed at length in order to develop a preliminary framework for the inquiry. No attempt was made to formulate hypotheses at this point; instead, it was decided to pursue the investigation by interviewing as many of the workers as would be necessary to arrive at clearly established conclusions.

Twenty-one persons were interviewed (with all but one department being represented among the interviewees), either at the union office or at the workers' homes. Eleven were members of the union committee. The ten other interviewees were workers whom the union organizers or committee members suspected of having voted against the union; all of these workers had signed union membership cards.

Findings

The patterns of responses obtained in the interviews clearly indicated the following facts:

1. When the union started its activity it was welcomed by most of the workers. The responses of committeemen and the other workers were similar on this point.

2. Most of the workers who joined the union did so by mailing a signed membership card to the union office.

3. Committee members reported that only a small minority of the workers who signed cards attended a union function during the campaign. They felt that surveillance of union meetings by company supervisors discouraged many workers from attending. The other workers interviewed avoided commenting on their reasons for not attending union meetings.

4. Committee members felt that [prounion talk in the mill during the campaign] had been quite extensive but that it had quieted down in the week preceding the election. The other workers characterized the campaign as a quiet one throughout.

5. Supervisors operated as "antiunion organizers" in the mill. They contacted every worker whom they considered a potential recruit to the "no-union" cause; members of the union committee were generally avoided. A wide variety of approaches was used to create antiunion feeling. On the other hand, the company's name was associated with all that was good and powerful: It was the workers' benefactor, providing jobs, good pay, benefits; the company would not tolerate a union—it would shut down if necessary to get rid of the union, as had recently happened in another southern textile mill. In addition, supervisors used their position of authority to bestow favors and promise rewards to those who would vote against the union.

The descriptions of these supervisory activities by committeemen and the other workers interviewed were quite different. The former regarded the threats and promises as part of the company's propaganda; they assumed that the other workers would give it as little weight as they did. The other interviewees were guarded and noncommittal on the effects which the supervisors' activities had had on themselves, but offered the opinion that other workers in the plant had been swayed by the supervisors' arguments.

6. The plant superintendent and the company's general manager made speeches to the workers in "captive audiences" at the plant 24 hours before the election. The status of the "big boss" was used to add weight to the thinly veiled threats of the supervisors that many workers would lose their jobs if the union won the election.

Committee members placed little weight on the captive audience speeches. They were regarded as propaganda techniques. The other interviewees referred to the speeches with great respect and freely offered the opinion that the captive audience meeting had been decisive in determining the result of the election.

7. The union's regional director made a radio address shortly after the captive audience meeting. The tenor of the address was positive rather than defensive, with primary emphasis on the benefits which unionism had brought to workers in organized plants. Most of the committee members interviewed had heard the address and felt that it had effectively countered the captive audience speeches. On the other hand, most of the other interviewees had not heard the radio speech; those who had, stated that they were favorably impressed but complained that it had not dealt with the threat of job loss if the union won.

Conclusions

The union committee was comprised of strongly prounion workers. Their identity as committeemen was known to management, and they were not subjected to the same pressures from supervision which had been applied to the other workers in their departments. Moreover, their prounion animus made them relatively impervious to management's appeals. Committeemen had to judge the effectiveness of the supervisors' antiunion campaign from the reactions of the other workers.

However, those who had been dissuaded from voting for the union were generally averse to admitting it. A climate of opinion in favor of the union had been built up early in the campaign which made workers reluctant to admit their defection. Such workers avoided contact with committee members. Consequently, the latter did not appreciate the extent to which the supervisors' pressures had been effective in undermining prounion sentiment in their departments.

The union staff relied primarily on committee members for information on union sentiment among the workers. Attendance at union meetings was not large enough to enable staff men to have contact with the bulk of the work force. The staff concentrated its efforts on recruiting among the workers who had not signed union cards. As a result, the organizers were not aware of the defections which had taken place among those who had joined the union earlier in the campaign.

The captive audience speeches by top management had markedly different effects on two groups. The workers who had been affected by the supervisors' antiunion propaganda were greatly impressed. However, the speeches had little or no effect on the group of strongly prounion workers of which the union committee was a part. Consequently, the committee's reports to the union staff on this subject reflected only the views of the committeemen.

Because the union staff was not fully informed on the impact of the top management speeches, the radio address by the union's regional director following the captive audience meeting did not come to grips with the most significant issue raised by the management speeches, viz, the threat to the workers' jobs if the union won the election. The workers who had taken this threat seriously were, therefore, left with the impression that their jobs would indeed be jeopardized if they voted for the union.

The failure of communication between the majority of the workers at the plant and the union committee was largely responsible for the union's defeat. The union staff's reliance on the committee for information about worker attitudes and beliefs led to the adoption of faulty tactics during the campaign.

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Membership of American Trade Unions, 1956

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DURING 1956, membership of national and international unions with headquarters in the United States averaged approximately 18.5 million, reflecting a 3-percent net gain over a 2-year period, or an increase of slightly more than 500,000, despite a reported drop in 1955.¹ On the basis of union reports, supplemented in some cases by Bureau of Labor Statistics estimates, membership of affiliates of the American Federation of Labor and Congress of Industrial Organizations stood at 16.9 million and unaffiliated national unions claimed 1.6 million. The proportion of union membership to the total labor force remained virtually unchanged from 1954 at 1 out of 4.

Of the 189 unions accounted for in the Bureau's new Directory, 130 had a total of slightly more than 1 million members outside of the continental United States, primarily in Canada. About 3.4 million women were union members. White-collar work—i. e., professional, clerical, and sales—accounted for 2.5 million members.

Almost as many union members (over 8 million) were attributed to nonmanufacturing as to manufacturing industries. More than 900,000, or 5 percent of all union members, were in Federal, State, or local government service.

Concentration of membership in a few large unions remains a characteristic of the labor movement. The 6 largest unions, each with 500,000 or more members, accounted for 1 out of every 3 union members, while 146 unions with less than 100,000 members each had one-fifth of total membership.

National and international unions reported more than 77,000 affiliated local unions, approxi-

mately the same number as was reported in the Bureau's 1955 Directory. More than half of the locals were chartered by 18 unions, each reporting 1,000 or more locals.

One hundred and forty-seven unions reported having more than 110,000 collective bargaining agreements in effect. The total number of agreements currently in effect is estimated at upwards of 125,000; an estimated 18 million workers are covered by these agreements.

Scope of Survey

In the questionnaire upon which the 1957 Directory was based, as in previous surveys, all national and international unions² were asked to report the average number of dues-paying members for 1955 and 1956; the categories of members included in, or excluded from, the 1956 reported membership (and an estimate of the number excluded); the number of members located outside of continental United States; and the approximate number of women members. In addition, this survey attempted, for the first time, to obtain estimates from the unions as to the dispersion of their membership among broad industry divisions, and the proportion of white-collar members. The returns, supplemented by Bureau estimates or other information in the absence of a union report,³ are analyzed in this article.

A general qualifying note is in order. In addition to the necessity of accounting for nonresponding unions if the data are to be meaningful, the collection of union membership figures, in other respects, still falls short of desired accuracy. The difficulties of measuring union membership were

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This article was excerpted from the Bureau's 1957 Directory of National and International Labor Unions in the United States (BLS Bull. 1222), which is scheduled for publication in November 1957.

¹ For details on 1954 membership figures, see Directory of National and International Labor Unions in the United States, 1955 (BLS Bull. 1185), pp. 6-12, or Structure and Membership of the Labor Movement (in Monthly Labor Review, November 1955, pp. 1231-1239).

² The basic requirement for inclusion in the Directory was affiliation with the AFL-CIO or, for unaffiliated unions, the existence of collective bargaining agreements with different employers in more than 1 State. The requirement concerning the geographical scope of collective bargaining agreements was waived for unions which organize government workers and, therefore, generally do not negotiate agreements. A few independent unions failed to reply to the Bureau's questionnaire and were omitted because it was impossible to determine whether they met the "interstate" definition. In addition, some unaffiliated unions, which may have been interstate in scope were omitted because adequate information was not available.

³ For unions affiliated with the AFL-CIO, paid per capita membership as of June 30, 1956, was used as a membership count.

discussed at some length in the 1955 Directory⁴ and need not be repeated in full here. In brief, however, the major obstacles are: (1) concepts and practices as to the definition and reporting of "membership" vary among unions, with many basing records on members in "good standing" rather than on a dues-paying count; (2) in some cases, union records at national union headquarters are inadequate to supply the information requested; and (3) some unions, as a matter of policy, refrain from issuing precise membership figures.

Although the Bureau cannot vouch for the accuracy or scope of the membership shown for each union in the Directory, the Bureau believes that the aggregate estimates of membership derived from the survey represent reasonable approximations of membership strength, perhaps more adequately in terms of total membership than in the separate categories studied.

⁴ See also Technical Note, Limitations of Union Membership Data (in Monthly Labor Review, November 1955, pp. 1265-1269).

⁵ Mergers and dissolutions account for the fact that listings appear for 186 national and international unions, while the tabulations cover 189 unions which were in existence at the end of 1956.

⁶ On September 25, 1957, the Brotherhood of Railroad Trainmen was accepted as an affiliate of the AFL-CIO by the Executive Council.

⁷ The total membership figure used for year-to-year comparisons include the members of the federal labor unions and the local industrial unions with the membership of national and international unions. This procedure conforms to the previous practice of the Bureau in the construction of its historical series.

⁸ Reported and estimated 1955 and 1956 membership figures were as follows:

1955

Combined AFL and CIO membership reports (127 unions)	15,430,930
"Per capita" data (12 unions)	446,587
Combined federal labor unions and local industrial unions	184,251
	16,061,768
Unaffiliated membership reports (43 unions)	1,173,812
Unaffiliated membership estimated (11 unions)	513,728
	1,687,540
Total	17,749,308

1956

AFL-CIO membership reports (132 unions)	16,391,590
AFL-CIO "per capita" data (5 unions)	360,818
Federal labor unions and local industrial unions	151,620
	16,904,328
Unaffiliated membership reports (42 unions)	1,059,284
Unaffiliated membership estimated (10 unions)	513,578
	1,572,862
Total	18,477,190

At the time of the merger convention, December 1955, the membership of the AFL-CIO based on per capita payments received by the former parent federations was 13,612,712. For the period December 1955 through June 30, 1956, average AFL-CIO membership on a per capita basis stood at 14,189,117. Directly chartered local unions are excluded from these figures.

Of the 186 national and international unions listed in the Directory, 138 are affiliated with the AFL-CIO.⁵ Slightly more than 90 percent of the total membership of all national and international unions, and about the same proportion of membership within the continental United States, are claimed by unions affiliated with the AFL-CIO. A total of 48 national or international unions not affiliated with the AFL-CIO were known to the Bureau in 1957. This group includes such long-established and well-known organizations as the Brotherhood of Locomotive Engineers, Order of Railway Conductors and Brakemen, Brotherhood of Railroad Trainmen,⁶ and the United Mine Workers of America.

A large number of unions do not meet the Bureau's definition of an unaffiliated national union used in compiling this and the previous Directory. That is, they are generally confined to a single establishment, employer, or locality. The number of unaffiliated single-firm or local unions presently in existence and the size of the membership attached to these unions are not known. The Bureau's file of current collective bargaining agreements, which contains virtually all agreements covering 1,000 or more workers but only a fraction of the smaller agreements, includes agreements negotiated by over 300 single-firm independent unions, covering slightly more than a half million workers.

Total Membership

Reports from 174 national and international unions, supplemented by per capita data and Bureau estimates for 15 unions, yielded a total of 18,325,570 members for 1956. The addition of 151,620 members in federal labor unions and local industrial unions directly affiliated with the AFL-CIO brings the total to 18,477,190.⁷ By affiliation, membership was distributed as follows: AFL-CIO, 16,904,328; unaffiliated, 1,572,862.

For 1955, also covered in this survey, total membership amounted to 17,749,308. Unions affiliated with the former AFL and the CIO reported a combined membership of 16,061,768; unaffiliated unions claimed 1,687,540 members.⁸ Corresponding figures for 1954, from the Bureau's 1955 Directory, were: total, 17.9 million; AFL and CIO unions combined, 16.1 million; unaffiliated, 1.8 million.

On the basis of these reported and estimated figures, total membership as indicated appears to have dropped slightly in 1955. While AFL-CIO totals remained virtually unchanged, membership in unaffiliated unions declined by approximately 140,000. In part, this decline is attributable to losses of more than 80,000 members suffered by 3 unions. Also, 5 independent unions, with a combined membership of 16,000, were for various reasons not included in the present Directory.

The 1956 figures reflect a sizable increase over 1955 for the AFL-CIO and a further, although slight, shrinkage for the independents. Primarily responsible for the latter development was the affiliation of the Brotherhood of Locomotive Firemen and Enginemen with the AFL-CIO. Twelve unions accounting for more than 500,000 new members contributed to the 843,000 gain reported by AFL-CIO affiliates.⁹

Distribution of Membership by Geographic Area. In 1956, membership in all areas outside of the continental United States amounted to about 1.1 million, or 6 percent of total membership, with the overwhelming majority (nearly 1 million) organized in Canada (table 1). Of the 130 unions claiming jurisdiction over workers in areas outside of the continental United States, nearly half (62) confined their activities to Canada, while 54 had organized workers in Canada as well as in other areas. Fourteen unions had members in areas exclusive of Canada.

Between 1954 and 1956, Canadian membership claimed by United States unions increased by about 54,000, or 6 percent. Total membership in areas other than Canada stood at 105,000 in both 1954 and 1956. In specific areas, however, fluctuations in membership were reported. Membership in Puerto Rico declined by 15 percent, while membership in Alaska increased by more than 30 percent. As in 1954, one union accounted for most of the members in Puerto Rico and another, for most members in Hawaii; in Alaska and the Canal Zone, no one union was predominant. About 2,000 members of 8 unions were located in other widely scattered areas throughout the world. More than half of the workers in this group were affiliated with 2 unions of Federal employees.

Membership within the continental United States, as reported by national and international unions, amounted to 17,233,000. Adding the membership of AFL-CIO federal labor unions and local industrial unions (attributing all to the United States) brings the total in the United States, within the scope of this survey, to approximately 17,385,000. It must be emphasized that this figure does not represent the total number of union members in the United States, since members of unaffiliated unions not interstate in scope are not accounted for. Probably a half million workers or more are members of such unions. Moreover, as

⁹ In one case, an increase of 88,000 resulted from using per capita figures for 1955 and reported figures for 1956. As a rule, reported membership figures are higher than membership counts based on per capita payments.

TABLE 1. *Membership reported by national and international unions, by geographic area and affiliation, 1956*

Geographic area	Number	All unions		Union affiliation			
		Members		AFL-CIO		Unaffiliated	
		Number (in thousands)	Percent	Unions	Members (in thousands)	Unions	Members (in thousands)
Total membership reported ¹	189	18,326	100.0	137	16,753	52	1,573
In continental United States.....	189	17,233	94.0	137	15,813	52	1,420
Outside continental United States ²	130	1,092	6.0	110	940	20	153
Canada.....	116	987	5.4	102	863	14	124
Hawaii.....	39	35	.2	35	10	4	25
Puerto Rico.....	21	45	.2	14	44	7	1
Alaska.....	45	21	.1	36	19	9	2
Canal Zone.....	22	2	(e)	18	2	4	(e)
Other.....	8	2	(e)	6	1	2	1

¹ 151,620 members of federal labor unions and local industrial unions directly affiliated with the AFL-CIO are not accounted for in these estimates. Also excluded are members of unaffiliated unions not interstate in scope, as defined in the Directory.

² Membership figures for areas outside of continental United States were compiled primarily from union reports to the Bureau. For unions which did not report Canadian membership, data were secured from Labor Organi-

zation in Canada, 1956 edition (Department of Labor, Economics and Research Branch, Ottawa, Canada).

³ Less than 0.05 percent.

⁴ Less than 500 members.

Note: Because of rounding, sums of individual items do not necessarily equal totals.

TABLE 2. *Distribution of national and international unions, by percentage change in membership reported, 1951-56*

Percentage change in membership	1951 to 1956		1954 to 1956		1955 to 1956	
	Number of unions	Percent	Number of unions	Percent	Number of unions	Percent
Total unions reporting ¹	135	100.0	158	100.0	168	100.0
20 percent or more gain.....	34	25.2	21	13.3	6	3.6
15 to 19.9 percent gain.....	10	7.4	4	2.5	2	1.2
10 to 14.9 percent gain.....	13	9.6	16	10.1	14	8.3
5 to 9.9 percent gain.....	18	13.3	27	17.1	32	19.0
1 to 4.9 percent gain.....	9	6.7	22	13.9	47	28.0
None or less than 1 percent gain or loss.....	17	12.6	23	14.6	52	31.0
1 to 4.9 percent loss.....	1	.7	10	6.3	5	3.0
5 to 9.9 percent loss.....	6	4.4	9	5.7	6	3.6
10 to 14.9 percent loss.....	7	5.2	6	3.8	1	.6
15 to 19.9 percent loss.....	4	3.0	6	3.8	2	1.2
20 percent or more loss.....	16	11.9	14	8.9	1	.6

¹ Only membership figures as reported by unions to the Bureau were used as a basis for the comparative data shown. The 1955 and 1956 membership figures were obtained from the questionnaire which was used to compile the current Directory. The 1951 membership reports appeared in the previous *Directory of Labor Unions in the United States*, 1953, BLS Bull. 1127, and 1954 figures in BLS Bull. 1185.

NOTE: Because of rounding, sums of individual items do not necessarily equal totals.

is discussed later in this report, a substantial number of workers are attached to national and international unions in the United States but for certain reasons are not counted as full or dues-paying members.

Membership Trends and Changes. In 1956, membership in national and international unions passed the 18-million mark for the first time. The increase of half a million members since 1954, however, stands in sharp contrast to the spectacular gains made during some 2-year periods in the late 1930's and the World War II period (chart 1). During the period 1930-45, union membership exclusive of Canada showed a fourfold increase. Since 1945, however, such membership has risen moderately, moving from 14.3 million in 1945 to 17.5 million, a 23-percent gain.

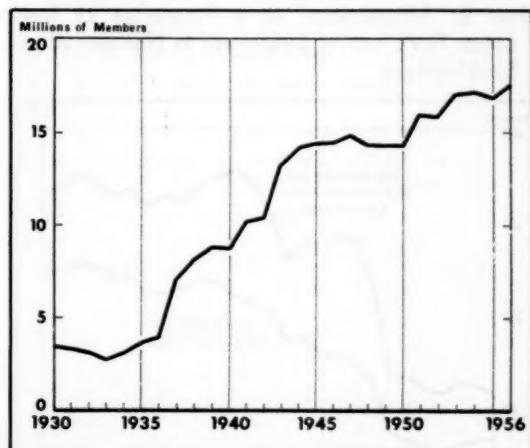
Since the Nation's labor force also increased substantially during these periods, changes in the relative stature of the labor movement, in terms of membership, are not reflected in membership totals alone but in these figures (exclusive of Canada) considered as a percentage of the total

² Total labor force includes employed and unemployed workers, self-employed, members of the Armed Forces, etc. Employment in nonagricultural establishments excludes the Armed Forces, self-employed individuals, as well as unemployed, agricultural workers, proprietors, unpaid family workers, and domestic servants.

At best, the ratio of union membership to total employment in nonagricultural establishments is only a rough measure of the organizing accomplishments of unions. Employment totals include substantial numbers of people who are not eligible for union membership (e.g., executives and managers).

labor force, and total employment in nonagricultural establishments.¹⁰ From 1930 to 1945, membership as a percentage of the labor force showed a threefold increase (chart 2). Over the past decade, however, the ratio of union members to total labor force has remained fairly constant at or near the 25-percent level. In terms of employment in nonagricultural establishments, a similar trend is noted. Since 1945, the growth of union membership has kept pace with but not exceeded the employment expansion in nonagricultural industries. Thus, a ratio of about 1 union member for every 3 employees in nonagricultural establishments has typically prevailed in the post-World War II period.

The stability of the preceding figures, particularly in the short run, tends to obscure frequently substantial shifts in the membership of individual unions. Although about three-fifths of the unions reporting membership data for 1955 and 1956 held to a relatively constant level (less than 5 percent change), nearly a sixth reported a gain or loss of 10 percent or more (table 2). Between 1951 and 1956, almost half of the unions reporting membership for the 2 periods experienced a rise or fall in

Chart 1. *Membership of National and International Unions, 1930-56¹ (Exclusive of Canadian Members²)*

¹ For the years 1948-52, midpoints of membership estimates, which were expressed as ranges, were used.

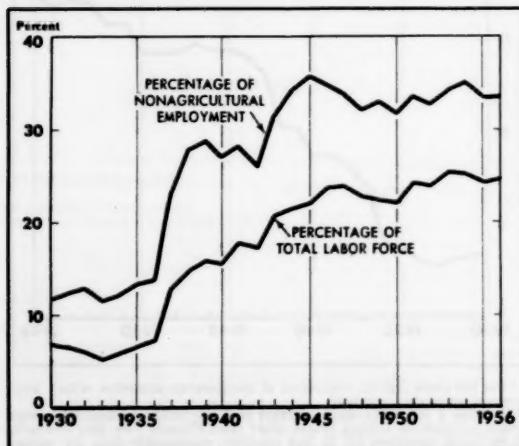
² Includes a relatively small number of trade union members in areas outside continental United States other than Canada. In 1954 and 1956, 105,000 union members fell in this category; comparable data for earlier years are not available.

membership of 15 percent or more; only 1 out of 5 indicated a net gain or loss of membership of less than 5 percent. For all the periods studied, more unions gained than lost members.

Size of Unions. The heavy concentration of membership in a few unions, long a characteristic of the American labor movement, was somewhat more marked in 1956 than in 1954. In 1954, the 10 largest unions had a combined membership of 7.7 million, or 43 percent of total union membership; whereas in 1956, their membership had risen to 8.2 million, or 45 percent of the total. Six unions, with 500,000 or more members each, had a combined membership of 6.4 million (an increase of 450,000 over 1954) and accounted for roughly 1 out of 3 union members (table 3). On the other hand, the number of national and international unions with a membership of less than 25,000 fell from 100 to 89,¹¹ with a decline in membership of nearly 90,000. Of the 52 unaffiliated unions, 40 were recorded with a membership of less than 25,000, and only 5 with more than 100,000.

Women Members. Almost 3.4 million members¹² or less than one-fifth of all members of national and international unions in 1956 were women. This is based on reports from 152 unions

Chart 2. Membership¹ as a Percentage of Total Labor Force and of Employees in Nonagricultural Establishments



¹ Excludes Canadian membership. See chart 1, footnote 2.

TABLE 3. *Distribution of national and international unions, by number of members reported and affiliation, 1956*

Number of members reported	All unions		Union affiliation	
	Number	Percent	Members	
			Number (in thous- ands)	Percent
All unions ¹	180	100.0	18,326	100.0
Under 1,000 members	16	8.5	9	(2)
1,000 and under 5,000 members	28	14.8	71	0.4
5,000 and under 10,000 members	18	9.5	129	.7
10,000 and under 25,000 members	27	14.3	415	2.3
25,000 and under 50,000 members	24	12.7	835	4.5
50,000 and under 100,000 members	33	17.5	2,281	12.4
100,000 and under 200,000 members	19	10.1	2,570	14.0
200,000 and under 300,000 members	9	4.8	2,052	11.2
300,000 and under 400,000 members	5	2.6	1,742	9.5
400,000 and under 500,000 members	4	2.1	1,808	9.9
500,000 and under 1,000,000 members	3	1.6	2,475	13.5
1,000,000 members and over	3	1.6	3,939	21.5

¹ See footnote 1, table 1.

² Less than 0.05 percent.

NOTE: Because of rounding, sums of individual items do not necessarily equal totals.

and Bureau estimates for all but 1 of the remaining 37 unions (table 4). As in previous years, women unionists represented about 1 out of 7 in the Nation's female labor force.

In half of the unions, women represented less than 30 percent of the membership. A considerable number (51) had no women members. Women accounted for half or more of membership in 24 unions in which were found more than two-fifths of all women unionists. In 8 unions, women represented 70 percent or more of membership; their combined total amounted to less than 850,000 women, or 25 percent of all women members.

The largest numbers of women members were reported by two apparel unions. Other unions with sizable numbers of women members were those having their principal jurisdiction in electrical and transportation equipment manufacturing,

¹¹ The loss of these 11 unions is attributable to mergers, termination of activities, or failure to meet the Bureau's interstate standard for inclusion.

¹² This figure represents an increase of about 400,000 since 1954. This increase is, of course, related to the increase in total union membership since that time. It may also reflect improved reporting practices on the part of unions. In 1956, only 37 unions did not supply information on women membership, as compared with 64 in 1954. Previous figures included an estimate of 851,000 women members; the comparable figure for 1956 was 245,000.

TABLE 4. *Estimated distribution of national and international unions, by proportion of women members, 1956¹*

Percent of women members	All unions			
	Unions		Number of women members	
	Number	Percent	Number (in thousands)	Percent
All unions.....	188	100.0	3,400	100.0
No women members.....	51	27.1
Under 10 percent.....	54	28.7	175	5.2
10 and under 20 percent.....	25	13.3	590	17.4
20 and under 30 percent.....	15	8.0	254	7.5
30 and under 40 percent.....	8	4.3	388	11.4
40 and under 50 percent.....	11	5.9	504	14.8
50 and under 60 percent.....	6	3.2	292	8.6
60 and under 70 percent.....	10	5.3	351	10.3
70 and under 80 percent.....	4	2.1	675	19.9
80 and under 90 percent.....	3	1.6	83	2.4
90 and under 100 percent.....	1	.5	86	2.5

¹ 182 unions reported 3,15 million women members. 37 unions did not report the number of women or failed to furnish membership data against which reported percentages could be applied. It was estimated that 25 of these had approximately 244,700 women members and 11 unions had no women members. For one union, appropriate information was not available. In terms of affiliation, it is estimated that women members were distributed as follows: AFL-CIO, 95 percent; unaffiliated, 5 percent. Women members of AFL-CIO federal labor unions and local industrial unions are not included in these estimates.

NOTE: Because of rounding, sums of individual items do not necessarily equal totals.

service and retail trades, communications, and textile mills.

White-Collar Members. In this survey, the Bureau attempted, for the first time, to obtain data on white-collar membership in national and international unions, that is, members employed in professional, technical, sales, and clerical occupations.¹³ On the basis of reports (largely estimates) from 125 unions, supplemented by Bureau estimates for 59 unions, white-collar membership

¹³ It was not expected that an accurate count of white-collar membership could be obtained. In the first place, it is difficult to define "white-collar" work in a general questionnaire so as to take account of all the borderline occupations. Secondly, few, if any, national unions with both blue-collar and white-collar workers maintain separate records for each group. Because of widespread public interest in white-collar organization, the Bureau is presenting the aggregate results of the inquiry, despite their limitations. However, as was pledged in the questionnaire, estimates made by individual unions are not shown in the Directory.

¹⁴ Much the same limitations apply to these estimates as were indicated for white-collar membership (footnote 13), namely, the difficulty of defining industries in a questionnaire of this type and the general absence of detailed records in national unions with membership in more than one industry. The Bureau hopes that in subsequent surveys this much desired type of information can be improved. Meanwhile, readers of this article who might be tempted to relate these membership estimates to employment in the various industry divisions should bear in mind the nature of these estimates, the inclusion of retired workers and unemployed members in some membership totals, and the fact that union membership totals are not necessarily the same as collective bargaining agreement coverage. As in the case of white-collar membership figures, unions responding to this query were assured that individual estimates would not be published.

amounted to approximately 2.5 million (table 5). Members in this category represent less than 15 percent of all members of national and international unions.

Slightly more than half of all white-collar members were in 37 unions which were made up almost entirely of clerical, sales, or professional workers; three-fourths were in unions where they comprised 50 percent or more of the membership. About half of all national and international unions reported no white-collar members or were believed to have none.

The great bulk of white-collar membership was found in unions operating primarily in retail trade, public service, communications and transportation, and in the entertainment industry. However, several blue-collar unions also reported a substantial number of white-collar members, although in each union they represented only a small proportion of total membership.

Industrial Distribution of Membership. Another query new to the Bureau's Directory series relates to the distribution of union members among the various major industry divisions.¹⁴ Of the 187 unions for which data were reported or estimated, 111 unions had organized approximately 8.8 million workers in manufacturing industries (table 6). Seventy-eight of these unions had virtually all of their membership in manufacturing (table 7). In nonmanufacturing industries, the largest concentrations of members were found in transportation (2.7 million) and contract construction (2.1 million).

TABLE 5. *Estimated distribution of national and international unions, by proportion of white-collar members, 1956¹*

Percent of membership in white-collar work	Number of unions	Number of white-collar members (in thousands)	Percent of all white-collar members
All unions.....	184	2,463	100.0
None.....	95
Less than 10 percent.....	33	268	10.9
10 and under 30 percent.....	8	156	6.3
30 and under 50 percent.....	2	171	7.0
50 and under 70 percent.....	4	249	10.1
70 and under 90 percent.....	5	320	13.0
90 percent and over.....	37	1,297	52.7

¹⁵ 125 unions reported 1,740,000 white-collar members. 64 unions did not report the number of such members. It was estimated that 16 of these had approximately 723,000 white-collar members and 43 unions had no white-collar members. For 5 unions, appropriate information on which to base an estimate was not available.

NOTE: Because of rounding, sums of individual items do not necessarily equal totals.

Less than 100,000 members were reported for two nonmanufacturing divisions: finance and insurance and agriculture and fishing. The membership count in Federal, State, and municipal service was slightly more than 900,000. In this category, 3 out of 4 members were in 18 unions which confined their jurisdiction almost entirely to public employees. A similar pattern prevailed in the telephone and telegraph industry where 4 unions functioning primarily in this industry accounted for 85 percent of the members. However, in retail and wholesale trade, only 1 union drew virtually all of its members from these industries, while 16 other unions, accounting for two-thirds of all union members in this industry classification, had substantial portions of their members among various other industries.

Although the membership strength of the AFL-CIO was about evenly divided between manufacturing and all other industries combined, unaffiliated unions followed a different pattern. Only 1 out of 5 members of unaffiliated national unions was a manufacturing worker. As these estimates demonstrate, contract construction is the almost exclusive domain of AFL-CIO affiliates; in mining, however, the independents show considerably greater strength.

Exclusions. As in previous surveys, the Bureau again requested unions to indicate whether they included or excluded 5 specific categories from their membership reports: Unemployed, those involved in work stoppages, those in the Armed Forces, apprentices, and the retired. Moreover, unions were asked to furnish an actual or estimated figure on the number of members in the excluded categories. Ideally, if all unions which excluded some or all of these categories from membership counts furnished such figures, a membership total could be compiled which would uniformly account for all members attached in some way to unions. The response again fell short of this goal, although more unions reported in 1957 than in 1955.

One hundred and fifty-one unions reported in whole or in part on the practices followed, as compared with 129 in 1955. Nonrespondents for particular categories ranged from nearly one-half to one-third of all unions surveyed, encompassing from one-third to one-fifth of total membership. Considering practices among reporting unions only, it would appear that the unemployed, those on strike, and apprentices are likely to be included in membership reports. Retired members are likely to be excluded, and members in the Armed Forces have roughly an even chance of being

TABLE 6. *Estimated distribution of national and international unions and union membership by industry, 1956*

Industry	All unions			Union affiliation					
	Number ¹	Members ²		AFL-CIO		Unaffiliated			
		Number (in thou- sands)	Percent	Number (in thou- sands)	Percent	Number (in thou- sands)	Percent		
All unions ³	187	18,104	100.0	136	16,553	100.0	51	1,551	100.0
Manufacturing	111	8,839	48.8	85	8,531	51.5	26	308	19.8
Nonmanufacturing (excluding government)	165	8,350	46.1	126	7,353	44.4	39	996	64.2
Mining and quarrying	13	518	2.9	9	114	7	4	404	26.1
Contract construction	22	2,123	11.7	20	2,122	12.8	2	1	(4)
Transportation	50	2,727	15.1	34	2,319	14.0	16	408	26.3
Telephone and telegraph	6	428	2.4	3	320	1.9	3	108	7.0
Electric and gas utilities	15	323	1.8	11	303	1.8	4	20	1.3
Trade	17	883	4.9	14	859	5.2	3	24	1.5
Finance and insurance	5	51	.3	3	47	.3	2	4	.2
Service industries	31	1,222	6.7	27	1,218	7.4	4	4	.3
Agriculture and fishing	6	76	.4	5	51	.3	1	25	1.6
Government	34	915	5.1	24	669	4.0	10	247	15.9

¹ These columns are nonadditive; many unions have membership in more than one industrial classification.

² Number of members computed by applying percentage figures to total membership. Total membership, however, may include retired and unemployed workers.

³ 161 unions reported an estimated distribution of membership by industry.

For 26 unions, the Bureau estimated industrial composition. For 2 unions with a combined membership of 222,000, no estimates were made. Also see footnote 1, table 1.

⁴ Less than 0.05 percent.

NOTE: Because of rounding, sums of individual items do not necessarily equal totals.

included or excluded from the union membership reports.

The exclusion of certain categories of workers was indicated by 101 unions; 46 of these were able to furnish figures on the number excluded. For all categories, the total excluded was 305,000, or 7 percent of the total membership of about 4.3 million reported by the 46 unions. By category, the excluded were distributed as follows: unemployed, 71,000; involved in work stoppages, 5,000; Armed Forces, 68,000; apprentices, 18,000; retired, 136,000; and all other categories, 7,600.

Union Administration

Number of Locals. More than 77,000 locals were affiliated with national and international unions in 1956, a slight increase over 1954.¹⁵ About four-fifths of the locals were in AFL-CIO affiliates.

Over half of the total number of local unions were affiliated with 18 national and international unions (table 8). Of these, 13 were AFL-CIO unions which accounted for nearly half of the AFL-CIO total of about 62,000 locals. Almost three-fourths of all unions had less than 400 locals; two-fifths had less than 100.

Number of Collective Bargaining Agreements. The number of collective bargaining agreements reported by individual national and international unions ranged up to 11,000 excluding a count of separate supplements, pension plans, and health and insurance documents. For the 164 national and international unions that reported on collective bargaining agreements or for which the Bureau was able to make estimates, a total of approximately 110,000 agreements was compiled.¹⁶ Almost half of the total were held by 6 unions affiliated with the AFL-CIO, each union having 5,000 agreements or more. Most of the unions in this group had a large segment of their membership in the building construction industry. Nearly

¹⁵ Locals in Canada are included in these figures.

¹⁶ An examination of the size and characteristics of the remaining 25 unions with a combined membership of 3,961,200 indicates that the estimate of upwards of 125,000 agreements in existence, given in the 1955 Directory, still reflects the total number in operation.

¹⁷ For the 120 unions which supplied figures on collective bargaining coverage, it was noted that in the aggregate, coverage exceeded membership by a small margin—10.8 million workers covered as against 10.2 million members. Consequently, for the unions which did not report coverage data, and for which no estimate could be obtained from other sources, membership was assumed to be identical with coverage.

TABLE 7. *Estimated distribution of national and international unions, by percent of membership in major industry divisions, 1956*

Industry	Number of unions				
	1-19 percent	20-39 percent	40-59 percent	60-79 percent	80-100 percent
Manufacturing.....	9	10	8	6	78
Nonmanufacturing.....	70	15	7	10	63
Mining and quarrying.....	8	3	—	2	—
Contract construction.....	7	2	—	5	8
Transportation.....	10	3	3	2	32
Telephone and telegraph.....	2	—	—	—	4
Electric and gas utilities.....	12	—	1	—	2
Trade.....	11	1	4	—	1
Finance and insurance.....	1	1	—	—	3
Service industries.....	17	1	—	1	12
Agriculture and fishing.....	2	3	—	—	1
Government.....	14	1	1	—	18

NOTE. The number of unions shown in the distribution exceeds the total of 187 on which the data are based, because many unions have membership in more than one industrial classification.

three-fourths of all agreements were reported by 18 unions, each with 2,000 or more agreements in effect. Seventeen of the 164 were unions of government employees which held no collective bargaining agreements.

Coverage of Agreements. In this survey, the Bureau also requested national and international unions to indicate the total number of workers, nonmembers as well as members, covered by labor-management contracts. It was expected that many unions could only estimate this number, since such information is not normally collected on a systematic basis at national union headquarters. One hundred twenty unions reported the number of workers covered by collective bargaining agreements. In addition, 17 unions of government employees reported no workers covered by agreements. The Bureau prepared estimates for the remaining 52 unions.¹⁷

Aggregates of union membership and agreement coverage have different components. For example, membership reports include members who are not at work (e. g., retired, in the Armed Forces, or unemployed), and therefore are not covered by agreements. The 17 government unions which do not have contracts had a combined membership of nearly 700,000; 17 additional unions had some membership in government service. On the other hand, union agreements without a provision for a union shop or another form of union security may cover a substantial number of nonmembers in the bargaining unit.

TABLE 8. *Distribution of national and international unions, by number of locals and affiliation, 1956*

Number of locals	All unions				Union affiliation			
	Number	Percent	Locals		AFL-CIO		Unaffiliated	
			Number	Percent	Unions	Locals	Unions	Locals
All unions ¹	183	100.0	77,260	100.0	134	62,087	49	15,173
Under 10 locals ²	20	10.9	91	0.1	6	39	14	52
10 and under 25 locals.....	13	7.1	209	.3	7	103	6	106
25 and under 50 locals.....	19	10.4	708	.9	10	371	9	337
50 and under 100 locals.....	23	12.6	1,746	2.3	20	1,525	3	220
100 and under 200 locals.....	24	13.1	3,131	4.1	20	2,660	4	471
200 and under 300 locals.....	17	9.3	3,964	5.1	13	3,054	4	910
300 and under 400 locals.....	15	8.2	4,926	6.4	13	4,227	2	699
400 and under 500 locals.....	7	3.8	2,959	3.8	7	2,959		
500 and under 600 locals.....	5	2.7	2,730	3.5	5	2,730		
600 and under 700 locals.....	8	4.4	5,021	6.5	7	4,419	1	602
700 and under 800 locals.....	5	2.7	3,740	4.8	5	3,740		
800 and under 900 locals.....	4	2.2	3,419	4.4	4	3,419		
900 and under 1,000 locals.....	5	2.7	4,795	6.2	4	3,871	1	924
1,000 and under 1,500 locals.....	7	3.8	8,493	11.0	5	6,117	2	2,376
1,500 and under 2,000 locals.....	4	2.2	6,837	8.8	3	5,337	1	1,500
2,000 locals and over.....	7	3.8	24,491	31.7	5	17,515	2	6,976

¹ 15 unions did not report the number of local unions. For 9 unions, sufficient information was available on which to base estimates. For 6 unions with a combined membership of 180,000, appropriate information was not available.

² Includes 5 unions with no locals.

NOTE: Because of rounding, sums of individual items do not necessarily equal totals.

Based on union returns and Bureau estimates, it is estimated that more than 18 million workers are covered by collective bargaining agreements of national and international unions, including agreements outside of continental United States. The rather close similarity between the number of union members in national and international unions and the number of workers covered by the collective bargaining agreements of these unions, as revealed by this survey, seems to indicate that, in the aggregate, the number of nonmembers covered by agreements was roughly equivalent to the number of members not covered by agreements. Excluding membership outside of continental Unit-

ed States, and taking into account the estimated coverage of agreements negotiated by AFL-CIO federal labor unions and local industrial unions and by unaffiliated single-firm and local unions, an overall estimate of about 18 million workers under agreements in the United States would appear to be reasonable.¹⁸

¹⁸ The relative importance of large agreements has been highlighted by the Bureau's work in agreement analysis. The Bureau's file of approximately 5,000 current collective bargaining agreements contains virtually all agreements covering 1,000 or more workers exclusive of the railroad and airline industries. As of July 1957, the Bureau accounted for 1,859 agreements covering 1,000 or more workers each; total coverage of these agreements amounted to 8,143,100 workers. Adding the estimated coverage of railroad agreements, the combined coverage of major agreements (1,000 or more workers) amounted to slightly more than 50 percent of the total coverage of collective bargaining agreements in the United States.

The basic point of this discussion has been that labor builds social power. But all power is expansive and can be explosive. Hence, it seems only common sense for intelligent society to give due sway to what is *reasonable* in power and thus to minimize the likelihood of breakup. The potential dynamism of labor, it should always be remembered, is altogether "in the father's image"; it is fully in character with the broad, ever-growing expanse of our American society. If we do not want to change the dynamic quality of the American people, then we do not want a tame, visionless labor movement . . .

—J. B. S. Hardman, *Labor in Midpassage* (in Harvard Business Review, Cambridge, Mass., January–February 1953).

Supply and Use of Mortgage Funds, 1920-29 and 1947-56

ARNOLD E. CHASE*

THE CURRENT IMBALANCE between supply and demand factors in the mortgage market does not appear to be due to a lag in savings, or to lenders' lack of willingness to invest in mortgages, but rather to the large amount of funds required to cover each new mortgage transaction, including those involving the refinancing of existing homes, and to stretched-out repayments of loans.

During the past 10 years, the supply of mortgage funds has increased in proportion to the general growth in the economy. Between 1947 and 1956, personal savings accounts and the reserves of life insurance companies, which are the principal sources of mortgage funds, have grown by 80 percent. In 1956, they represented as high a proportion of disposable personal income as at any time in our history for which data are available, except during World War II. The institutions holding these savings generally have made them available for mortgage loans insofar as the laws and regulations under which they operate and prudent investment policies would permit. Despite this lending, a "tight" mortgage market has developed.

Mortgage debt on nonfarm homes has grown even more rapidly in the last decade than the supply of new savings available for mortgages. Lending institutions have met a part of the demand by shifting from Government securities and other investments to mortgages. Because of lower percentage downpayments, longer mortgage terms, and higher priced homes being sold in recent years, average mortgage amounts in new loans have risen sharply and they are repaid more slowly. As a result, a given amount of mortgage

funds will not cover as many new mortgage transactions as formerly. This is the principal reason for the current stringency in the mortgage market as related to new homebuilding.

Supply of Mortgage Funds

Voluntary savings by individuals are the original source of almost all residential mortgage funds. Certain types of business investors, notably mortgage companies, will have funds in mortgages at any given time, of course, but their holdings are usually considered temporary. Also, a large part of the funds supplied by Government agencies (Federal National Mortgage Association and Federal Home Loan Banks, as well as the former Home Owners' Loan Corporation) come from nonindividual investors. Pension funds, a form of forced saving—or deferred income—by individuals, also have begun to supply relatively small amounts of funds for mortgages. The fact remains, however, that the supply of residential mortgage funds depends mostly upon the volume of individuals' voluntary savings.

The form which individuals' savings take is very important in determining whether they will be available for residential mortgage lending. Several types of savings never, or very rarely, are used in mortgage financing. Among them are U. S. Savings Bonds, or other Federal, State, or municipal securities which obviously are not available for such investments; funds invested in corporate securities, except possibly securities of financial, real estate, and mortgage companies; and demand deposits in banks or currency held by individuals which, as a rule, do not add to the supply of mortgage funds because of their short-term characteristics.

Residential mortgage funds become available mostly from individuals' savings in the form of savings accounts at savings associations, commercial banks, mutual savings banks and, to a limited degree, credit unions, and in reserves of life insurance companies. The holders of these funds, in turn, invest a part of them in nonfarm residential mortgages. Here again, the proportion of total savings available to such financial institutions that will be placed in residential mortgages varies markedly between the major types of in-

*Of the Bureau's Division of Construction Statistics.

TABLE 1. *Disposable personal income, savings, and non-farm residential mortgage debt, 1921-29 and 1947-56*

[Dollar figures in billions]

Year	Disposable personal income	Investments of individuals in savings accounts ¹ and life insurance reserves		Nonfarm residential mortgage debt		
		Increase during year		Outstanding at end of year	Increase during year	Ratio to savings
		Total at end of year	Amount			
1921	\$58.7	\$24.6	\$1.8	3.1	\$10.3	.42
1922	59.1	27.0	2.4	4.1	11.4	.42
1923	69.0	29.9	2.9	4.2	13.4	.45
1924	69.8	33.0	3.1	4.4	15.5	.47
1925	72.1	36.2	3.2	4.4	18.4	.51
1926	76.7	39.2	3.0	3.9	21.5	.55
1927	76.5	42.9	3.7	4.8	24.4	.57
1928	76.6	45.8	2.9	3.8	27.2	.59
1929	82.5	47.2	1.4	1.7	29.4	.62
1947	169.0	110.1	6.7	4.0	35.7	.32
1948	187.6	115.5	5.4	2.9	41.5	.36
1949	188.2	121.2	5.7	3.0	46.5	.38
1950	206.1	126.8	5.6	2.7	54.9	.43
1951	226.1	134.6	7.8	3.4	62.5	.46
1952	237.4	146.3	11.7	4.9	69.6	.48
1953	250.2	158.5	12.2	4.9	77.3	.49
1954	254.5	171.9	13.4	5.3	87.1	.51
1955	270.2	184.8	12.9	4.8	100.1	.54
1956 ²	287.2	198.9	14.1	4.9	111.5	.56

¹ Includes savings accounts in savings associations, mutual savings banks, commercial banks, postal savings, and credit unions, based on the Federal Home Loan Bank Board series from which U. S. Savings Bonds have been deducted as not being a source of mortgage funds.

² Data for 1953-56 were derived by extending Grebler-Blank-Winnick series (see source note), using FHLBB data for mortgage debt outstanding on 1- to 4-family nonfarm homes and for loans held by life insurance companies on multifamily dwellings, together with estimates of mortgage loans held by commercial and mutual savings banks on multifamily dwellings derived by subtracting loans on 1- to 4-family nonfarm homes from Federal Reserve Board data on total residential mortgage loans held by banks. Over the whole period from 1939 to 1952, the estimates derived in this way ranged from \$2.6 billion to \$3.1 billion below the Grebler-Blank-Winnick series, presumably owing to the omission of holdings of mortgages on multifamily dwellings by FNMA, by savings associations, and by individuals and others. In 9 out of the 14 years, the difference was either \$2.9 billion, \$3.0 billion, or \$3.1 billion. The estimates were inflated by \$3.0 billion, therefore, to extend the Grebler-Blank-Winnick series through 1956.

³ Preliminary.

SOURCE: Raymond W. Goldsmith, *A Study of Savings in the United States*, Vol. III (Princeton, N. J., Princeton University Press, 1956); Federal Home Loan Bank Board series; Leo Grebler, David M. Blank, and Louis Winnick, *Capital Formation in Residential Real Estate* (Princeton, N. J., Princeton University Press, 1956); Survey of Current Business (U. S. Department of Commerce, July 1957).

stitutions according to the laws and regulations under which they operate, and their traditional investment portfolio policies.

For example, at the end of 1956, only slightly more than one-third of total life insurance company assets were in the form of mortgages. Commercial bank holdings of mortgages amounted to more than 45 percent of their time deposits. For mutual savings banks, mortgage holdings equaled about two-thirds of time deposits. Savings and loan associations held about 84 percent of their total assets in the form of mortgages.¹ Thus, a dollar saved at a savings and loan association is most likely to find its way into mortgages.

The propensity of savings institutions to invest in mortgages also varies from time to time, depending upon the availability and attractiveness of other outlets for investment funds. There have been periods since 1950 when other demands for funds were relatively low and, as a result, savings institutions were actively seeking mortgage investments. During 1956 and so far in 1957, however, the unprecedented demand from business for investment funds other than residential mortgages has enabled financial institutions to be more selective in choosing the most attractive investments from the standpoint of yield, liquidity, and safety. In a situation of this kind, mortgages usually are at a competitive disadvantage because they are not considered very liquid and the net yield, especially on Government-backed mortgages which have the highest degree of liquidity, has not kept pace with yields on other investments.

Increases in individuals' savings in the form of savings accounts and life insurance reserves have ranged from 2.7 percent to 5.3 percent of disposable personal income during the past 10 years (table 1). They were relatively low in 1948 and 1949, when consumers were spending freely for goods that had not been available during the war. They dropped even lower in 1950 when the outbreak of the conflict in Korea set off a spurge of consumer buying. Since 1952, however, savings and life insurance company reserves have maintained a relatively high level with only a slight dip in 1955 which probably could be accounted for by record sales of automobiles in that year.

The percent of disposable personal income invested annually in savings accounts and insurance reserves has been considerably higher in the last decade than it was in the 1920's, the last previous period when new homebuilding was at relatively high levels. Over the 10-year period, such annual investment averaged 4.1 percent of the annual disposable personal income as compared with about 3.8 percent per year in the 1920's. (Savings were lower—negative in some years—during the depression of the 1930's, of course, and much higher during World War II, when many consumer goods were not available.) This increase is even

¹ These and other data are based on information published in the Federal Reserve Bulletin, June 1957, adjusted by the author's estimates of the proportion of mortgage investment in multifamily dwellings.

more significant when it is considered that savings accounts and life insurance reserves represent a smaller share of total savings than they did during the earlier period. The data for 1947-56 and for 1921-29 do not include individual holdings of U. S. Savings Bonds which are not available for mortgage financing; these holdings currently amount to an additional \$50 billion compared with less than \$1 billion in the earlier period. Similarly, the savings of individuals in the form of pension funds, which have become somewhat significant in recent years, are not included in the data.

Use of Mortgage Funds

The mortgage debt on nonfarm residential properties has more than trebled in the past 10 years (table 1); in the 1920's, it increased slightly less than 3 times. By the end of 1956, it is estimated to have reached a total of about \$111.5 billion and it is continuing upward in 1957.

Funds received by financial institutions from repayments on existing mortgages are reinvested in new mortgages, for the most part. Thus, the pool of mortgage funds is in the nature of a revolving fund to which new savings are added. If all new savings of the forms represented in table 1 went into nonfarm residential mortgages, they would have covered the increase in mortgage debt in all of the last 10 years except 1948, 1950, and 1955, and in the latter year, the difference was slight. Similarly, in the 1920's, savings' increases would have covered the mortgage-debt increase in all but 2 years. Cumulatively, savings increased by \$88.8 billion during the 1947-56 period against \$75.8 billion for mortgage debt; comparable totals for the 1920's were \$22.6 and \$19.1 billions, respectively. Since, in the aggregate, the financial institutions involved do not put so large

a percentage of their new funds into mortgages, their requirements for mortgage funds have been met during the last decade by shifting from other assets to mortgages. As a result, the ratio of mortgage debt to savings climbed from 0.32 at the end of 1947 to 0.56 at the end of 1956 (table 1);² at that point, it approached the peak reached in the late 1920's when it had risen from 0.42 to 0.62, amid indications that portfolios were about saturated with mortgages.

Further growth of mortgage debt appears to be limited by the increase in savings in the form of savings accounts and life insurance reserves, unless new sources of mortgage funds are found. A reversal by financial institutions of their shift toward mortgages is possible, if mortgage investments are found relatively unattractive among competitors for funds, or if the demand for mortgage funds should decline as it did during the depression of the 1930's and World War II.

A given amount of mortgage funds does not cover the financing of as many new mortgages as formerly for several reasons. In the first place, the turnover of mortgage funds is slower because of the longer mortgage terms prevailing in the post-World War II period, especially for Government guaranteed or insured loans. Whereas during the 1920's, loans of 10 years or less were most common, the average term of Federal Housing Administration mortgages made during 1956 was 25½ years on new homes and 22½ years on existing homes.³ Veterans Administration mortgages are equally long, and even conventional mortgages as long as 20 years on new homes have become common in recent years. Thus, although average mortgage terms are shortened by prepayments in periods of high real estate activity, in general, funds are repaid more slowly now than formerly and they cannot be used to finance as many home purchases over a given period of time.

A second factor is that the average loan amount of new mortgages has risen sharply since 1948. For FHA 1-family home transactions,⁴ the increase between 1948 and 1956 was 56 percent on new homes and 68 percent on existing homes (table 2). Veteran Administration average loan amounts on new and proposed homes⁵ rose by 60 percent during this 8-year period, while for existing homes, the increase was 63 percent. No information is available on average loan amounts for conventional

¹ Savings of individuals as represented by their holdings of mortgages are included in data for outstanding nonfarm residential mortgage debt but not for total investment of individuals. Therefore, the ratios in table 1 are slightly inflated.

² Based on informed opinion (for the 1920's) and unpublished data (for 1956), to appear in the 10th Annual Report of the Housing and Home Finance Agency.

³ Section 203 of the National Housing Act authorizes the insurance of mortgages by the Federal Housing Administration on new and existing 1- to 4-family dwellings and accounted for nearly two-thirds of all mortgage insurance written by the Federal Housing Administration up to the end of 1955.

⁴ Section 501a of the Servicemen's Readjustment Act authorizes the Veterans Administration to guarantee payments of loans to eligible veteran borrowers for the purchase or construction of a home.

mortgages, but the average value of all nonfarm mortgage recordings of \$20,000 or less, which includes conventional mortgages, also increased by 60 percent during the period. These higher average loan amounts per unit reduce the number of loans that can be financed with any given amount of mortgage funds. An increase from \$7,000 to \$11,000, for example, would reduce the number of possible transactions by more than one-third.

Higher average loan amounts result from either or both of two causes, i. e., higher selling prices and lower percentage downpayments. According to field studies made by the U. S. Department of Labor's Bureau of Labor Statistics, the median selling price of new houses started during the first quarter of 1956, at \$14,500 was up by 18 percent over that of new houses started just 2 years earlier, in the first quarter of 1954.⁶ Construction costs advanced by about 7½ percent in the same period. Larger and better equipped houses accounted for a part of the selling price increase, and higher land prices and land development costs for an additional part.

It is well known that downpayment requirements on VA-guaranteed mortgages, though changed from time to time during the past 10 years, have tended to be lower than for other types of financing. Requirements for FHA-insured loans have generally been somewhat higher, but still generally below lenders' requirements on conventional mortgages. These two types of Government-backed financing during much of this period undoubtedly have resulted in lower average down-

payments for all mortgage loans than would otherwise have been the case, especially since conventional mortgages must compete with them when mortgage funds were in plentiful supply. When downpayments are lower, mortgage amounts obviously must be higher and a given amount of mortgage funds will cover fewer loans.

Many of the buyers of new homes already own a home which they usually sell, or trade in. The Federal Reserve Board Survey of Consumer Finances found that about one-third of the buyers of new homes in 1956 already owned homes.⁷ When new homebuilding is at a high level, the turnover of existing homes also is brisk. In many cases, the new purchaser of the existing house needs a larger mortgage than the unpaid balance of the mortgage formerly on the house. Average loan amounts in new mortgages on existing homes also have been increasing, as indicated by the data available for FHA and VA transactions in table 2. Thus, the turnover of existing homes is consuming increasing amounts of mortgage funds.

No exact measurement of the demand for new mortgage funds is possible with the information currently available. The need for additional funds is dependent in part upon the rate of repayment of outstanding loans, about which there is no precise information, and upon requirements for refinancing existing homes, as well as for the original financing of new homes. While some of the needed data are being compiled regularly for Government-backed

⁶ See *Monthly Labor Review*, May 1957, p. 572; selling price data are not available for existing homes at all, or for new homes in earlier years.

⁷ See *Federal Reserve Bulletin*, June 1957, p. 628.

TABLE 2. *Average mortgage loan amounts, increase in mortgage debt per new dwelling unit, and construction cost index, selected years, 1948-56*

Item	1956	1955	1954	1952	1950	1948	Percent increase, 1948-56
FHA 1-family home transactions:							
Average loan amounts:							
New homes.....	\$11,010	\$10,034	\$8,862	\$8,273	\$7,101	\$7,058	56
Existing homes.....	10,013	9,603	9,030	8,047	6,801	5,969	68
VA home loans guaranteed:							
Average loan amounts:							
New and proposed homes.....	12,473	11,796	11,044	9,475	8,223	7,777	60
Existing homes.....	10,332	10,024	9,512	8,110	7,289	6,320	63
Average value of nonfarm mortgage recordings of \$20,000 or less.....	7,521	7,279	6,644	5,950	5,335	4,688	60
Increase in total mortgage debt outstanding during the year per new private nonfarm dwelling completed.....	10,400	9,300	8,900	7,100	6,000	5,800	79
Construction cost index (1947-49=100).....	129.4	123.9	120.3	119.1	107.7	104.8	23

SOURCE: Ninth Annual Report (Housing and Home Finance Agency, 1955); unpublished data supplied by Loan Guaranty Section, Veterans Administration; and E. H. Boeckh and Associates, Washington, D. C.

loans, these are not sufficient to measure the demand for mortgage loans. Furthermore, such data are generally unavailable for conventional mortgages which usually account for more than one-half of the total mortgage debt outstanding.

Since current interest centers primarily on meeting the needs for funds to finance new home purchases, a general indication of overall requirements derived by relating expansion of total mortgage debt to the number of new dwelling units completed might be of some use. Such a rough measure (table 2), shows that for each new dwelling completed in 1956, total nonfarm residential mortgage debt expanded by about \$10,400. This was 79 percent more than the comparable amount

for 1948. Approaching the question in a different way, it is interesting to note that completion of about 1,400,000 new dwellings in 1950 was accompanied by an expansion of only about \$8.4 billion in mortgage debt, whereas the expansion was \$13.0 billion in 1955 when approximately the same number of new dwellings were completed. Therefore, if the 1957 experience repeats that of 1956, 1 million new dwelling units would involve expansion of the mortgage debt amount by \$10.4 billion. These comparisons illustrate the sharp rise in the amount of funds required for each mortgage transaction, and they go a long way toward explaining the current stringency in the mortgage market.

Conferences and Institutes, November 16 to December 15, 1957

EDITOR'S NOTE.—As a service to its readers, the *Monthly Labor Review* publishes a list of forthcoming conferences and institutes devoted to the broad field of industrial relations. Institutes and organizations are invited to submit schedules of such meetings for listing. To be timely enough for publication, announcements must be received 90 days prior to the date of a conference.

Date	Conference and sponsor	Place
November 18-19...	Top Personnel and Industrial Relations Conference. <i>Sponsor:</i> Management Center, Marquette University.	Milwaukee, Wis.
December 2-13...	Executive Decisionmaking Course (No. 4). <i>Sponsor:</i> American Management Association.	Saranac Lake, N. Y.
December 4-6....	Conference on the Training of Arbitrators. <i>Sponsor:</i> Management Center, Marquette University.	Milwaukee, Wis.
December 5-6....	Orientation Seminar on Management Development—Appraisal Interview and Review. <i>Sponsor:</i> American Management Association.	New York, N. Y.
December 7.....	Conference on Personnel Testing. <i>Sponsor:</i> Management Center, Marquette University.	Milwaukee, Wis.
December 9-11...	Seminars on Collective Bargaining and the Administration of the Union Contract and on Psychological Tests—Their Use in Personnel Administration. <i>Sponsor:</i> American Management Association.	New York, N. Y.

Summaries of Studies and Reports

Earnings and Wage Differentials in 17 Labor Markets, 1956-57

AVERAGE PAY LEVELS for 4 selected occupational groups increased approximately 5 percent during 1956, according to studies by the U. S. Department of Labor's Bureau of Labor Statistics in 17 labor markets, during the winter of 1956-57.¹ (See table 1.) The increases in earnings of women office workers and industrial nurses recorded during 1956 slightly exceeded those recorded during 1955, while increases for skilled maintenance men and unskilled plant workers fell slightly below last year's rise in earnings.² However, taking the four groups as a whole, there was little difference in the increases registered during 1956 and 1955. Between 1953 and 1957, the earnings of these groups increased about 20 percent on the average.

Pay levels were generally highest in the larger western (Los Angeles and San Francisco-Oakland) and North Central (Chicago and Cleveland) areas and lowest in the southern areas (Memphis and Dallas). Maximum wage differences among the 17 areas were smaller for office workers than for plant workers, and within the latter group, they were greater for unskilled workers than for skilled maintenance workers. In general, earnings of office and plant workers tended to be higher in manufacturing than in nonmanufacturing, and men earned more than women in similar jobs.

Trends in Occupational Earnings, 1953-57

Over the 4-year period between 1953 and 1957, all-industry average earnings for workers in the 4 occupational groups studied increased about 20 percent. This rise in straight-time earnings approximated that of workers in manufacturing industries, as also measured by BLS indexes. Average salaries for women office workers rose 19.7 percent and for women industrial nurses, 21.5

percent; average hourly earnings for men in skilled maintenance trades rose 20.3 percent and for unskilled men plant workers, 21.1 percent.³

Percent increases in earnings levels during 1953-57 varied substantially among areas. Largest increases were recorded in Kansas City for office workers (23.6 percent), nurses (26.6 percent), and skilled maintenance workers (24.8 percent), whereas pay rates for unskilled plant workers rose most (28.6 percent) in Atlanta. At the lower end of the array by job group were Buffalo with 15.2 percent for office workers, Portland with 15.5 percent for nurses, and Boston with 16.4 and 14.4 percent for maintenance men and unskilled workers, respectively.⁴ Thus, the greatest variation in wage rise was in the unskilled worker group.

The variation in amount of increase among the 4 job groups was smallest in Los Angeles and Philadelphia and greatest in Atlanta, where office

¹ This article and that on p. 1222 of this issue are part of a series of analyses of wages, establishment practices, and supplementary wage provisions in 17 labor market areas. The 1956-57 detailed findings are available in *Wages and Related Benefits, 17 Labor Markets, 1956-57* (BLS Bull. 1202, 1957).

The 17 labor market areas in 1956-57 were surveyed during the following months: 1956: August—Seattle; September—Boston, Buffalo; October—Dallas, Cleveland; November—Philadelphia; December—Pittsburgh, Kansas City; 1957: January—Birmingham, San Francisco-Oakland; February—Memphis; March—Minneapolis-St. Paul, Los Angeles—Long Beach; April—New York City, Atlanta, Chicago, Portland.

Six broad industry divisions were covered—manufacturing; transportation (except railroads); communication, and other public utilities; wholesale trade; retail trade; finance, insurance, and real estate; and selected service industries. Municipally owned utilities were excluded, as well as other government-operated establishments.

Coverage was limited to establishments with 51 or more workers, except in the 8 largest areas, where the minimum size was 101 employees for manufacturing, public utilities, and retail trade.

The estimates are based on data from approximately 4,100 establishments selected to represent 21,000 establishments, employing 7 million workers.

² Comparisons are limited to those areas surveyed in both 1955 and 1956. The 1955 data were published in BLS Bull. 1188 (1955) and summarized in an article in the *Monthly Labor Review*, September 1956, pp. 1040-1046.

³ Simple averages of increases recorded in individual areas. These percentage changes in earnings reflect principally (1) general salary and wage changes; (2) merit or other increases in pay received by individual workers while in the same job; (3) the effect of labor turnover or force expansion or reduction; and (4) shifts in the proportion of workers employed by establishments with different pay levels.

For methods, previous pay periods studied, and jobs used in compiling these data, see *Area Wage Trends for Selected Occupational Groups, 1952-55* (in *Monthly Labor Review*, November 1955, pp. 1251-1252). Pay periods covered in the present study are shown in text footnote 1.

⁴ The 4-year period covered only 41 months in Buffalo, 42 months in Boston, and 48 or more in other areas.

pay rose 3 to 4 percentage points less than that for nurses and maintenance men and 13 points less than pay rates for unskilled workers. The larger increase noted in unskilled pay in Atlanta and a few other areas reflects in part some adjustment of rates to the \$1 Federal minimum wage that went into effect on March 1, 1956.

During 1956, women office workers registered a 5.2-percent average increase in weekly salaries. Comparison of pay rates for those 10 areas studied in 1956-57 and a year earlier revealed that the average rise in pay rates for industrial nurses,

skilled maintenance men, and unskilled plant workers approximated the rise in office pay. The amount of increase during the year (see table 1) ranged by area and occupational groups as follows: For women office workers, from 3.4 percent in Atlanta to 6.5 percent in Philadelphia; for women industrial nurses, from 2.1 percent in Portland to 6.9 percent in Dallas; for skilled maintenance men, from 3.4 percent in Dallas to 7.5 percent in San Francisco-Oakland; and for unskilled plant workers, from 4.0 percent in Chicago and Dallas to 7.2 percent in Memphis.

TABLE 1. *Indexes of average weekly salaries or average hourly earnings¹ for selected occupational groups, 14 areas,² 1955-57, and percent changes for selected periods.³*

Area	Indexes (1953=100)											
	Women office workers			Women industrial nurses			Skilled men maintenance workers			Unskilled men plant workers		
	1955	1956	1957	1955	1956	1957	1955	1956	1957	1955	1956	1957
Northeast:												
Boston.....	108.3	(9)	117.0	108.1	(4)	117.7	107.2	(4)	116.4	107.6	(9)	114.4
Buffalo.....	105.3	115.2	107.9	(4)	117.1	106.7	(4)	119.5	107.6	(4)	118.2	
New York City.....	108.0	114.3	120.3	109.9	115.5	121.1	109.7	113.4	117.7	108.1	113.5	119.6
Philadelphia.....	110.8	114.6	122.0	110.3	115.1	122.2	111.9	116.4	122.5	106.0	115.5	120.9
South:												
Atlanta.....	105.2	111.8	115.6	109.9	119.8	124.4	108.3	114.1	119.1	107.9	122.6	126.6
Dallas.....	110.9	115.3	122.0	106.8	109.8	117.4	109.9	115.0	119.4	107.1	112.1	116.6
Memphis.....	106.2	113.2	118.0	114.3	121.0	126.1	106.5	115.2	121.4	108.8	117.2	125.6
North Central:												
Chicago.....	109.5	114.3	120.5	110.3	116.9	122.8	109.8	115.5	121.3	109.4	114.4	119.0
Cleveland.....	110.3	(9)	122.0	112.0	(4)	124.8	110.1	(9)	121.9	111.6	121.2	124.7
Kansas City.....	(4)	(9)	123.6	(4)	(4)	126.6	(4)	(4)	124.8	(4)	(4)	124.3
Minneapolis-St. Paul.....	109.9	114.1	121.3	114.2	124.4	110.2	115.5	121.7	111.6	117.1	125.1	
West:												
Los Angeles-Long Beach.....	108.4	113.5	120.5	108.1	112.8	119.5	108.7	114.8	119.4	109.8	113.6	119.6
Portland.....	110.3	116.0	120.2	108.5	115.2	115.5	109.6	115.0	121.2	110.6	113.9	119.1
San Francisco-Oakland.....	107.6	112.7	118.3	110.9	113.8	121.0	106.5	110.4	118.6	109.3	113.2	119.4
Percent changes in earnings												
Women office workers				Women industrial nurses				Skilled men maintenance workers				Unskilled men plant workers
1953 to 1954	1954 to 1955	1955 to 1956	1956 to 1957	1953 to 1954	1954 to 1955	1955 to 1956	1956 to 1957	1953 to 1954	1954 to 1955	1955 to 1956	1956 to 1957	
Northeast:												
Boston.....	5.2	2.9	(9)	(9)	6.5	1.5	(9)	(9)	5.3	1.9	(9)	(9)
Buffalo.....	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)
New York City.....	4.3	3.5	5.9	5.2	4.2	5.4	5.1	4.9	4.5	5.0	3.4	3.8
Philadelphia.....	7.1	3.4	3.4	6.5	7.1	3.0	4.3	6.2	7.2	4.4	4.0	5.2
South:												
Atlanta.....	3.0	2.2	6.3	3.4	5.3	4.3	9.0	3.8	5.3	2.9	5.4	4.3
Dallas.....	5.6	5.0	4.0	5.8	(9)	7.6	2.8	6.9	5.9	3.8	4.6	3.4
Memphis.....	4.1	2.1	6.5	4.3	6.7	7.1	5.9	4.2	3.5	3.0	8.1	5.4
North Central:												
Chicago.....	5.8	3.6	4.3	5.4	5.9	4.2	6.0	5.0	6.3	3.3	5.1	5.7
Cleveland.....	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)
Kansas City.....	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(9)
Minneapolis-St. Paul.....	6.3	3.3	3.8	6.3	9.4	4.3	3.4	5.3	6.6	3.3	4.9	5.3
West:												
Los Angeles-Long Beach.....	4.6	3.6	4.7	6.2	5.4	2.5	4.3	6.0	5.5	3.0	5.6	4.0
Portland.....	4.7	5.4	5.2	8.6	1.5	6.9	4.3	2.1	5.5	3.9	4.9	5.5
San Francisco-Oakland.....	4.4	3.0	4.8	5.0	4.3	6.3	2.6	6.4	4.0	2.4	3.7	7.5

¹ Average weekly salaries are earnings based on hours for which employees receive their regular straight-time salaries. Average hourly earnings are straight-time hourly earnings, excluding premium pay for overtime and for work on weekends, holidays, and late shifts.

² Pittsburgh, Birmingham, and Seattle, included in the current studies, were not surveyed in 1953 (the base year of the indexes), 1954, 1955, or 1956.

³ Years ending June 30. The periods studied varied among the areas. See text footnote 1 for the timing of the 1956-57 surveys.

^a Not surveyed this period.

^b Revised.

^c Not surveyed in consecutive periods between 1953 and 1957.

TABLE 2. *Average weekly salaries¹ for women in 14 office occupations, 17 areas, winter 1956-57²*

Area	Book-keeping-machine operators, class A	Book-keeping-machine operators, class B	Clerks, ac-counting, class A	Clerks, ac-counting, class B	Clerks, file, class B	Clerks, payroll	Compu-tomer operators	Key-punch operators	Office girls	Secre-taries	Stenog-raphers, general	Switch-board operators	Typists, class A	Typists, class B
Northeast:														
Boston	\$61.00	\$52.50	\$65.50	\$52.50	\$44.50	\$59.00	\$54.00	\$54.50	\$45.00	\$67.50	\$58.50	\$54.50	\$55.50	\$48.50
Buffalo	65.00	51.50	72.50	54.00	48.00	66.00	57.00	59.00	47.00	76.00	64.00	58.50	61.50	52.50
New York City	71.50	61.00	76.50	62.00	52.00	73.00	66.00	61.00	49.00	82.50	66.50	64.50	64.50	56.50
Philadelphia	64.00	53.50	68.50	55.00	45.00	61.00	58.50	58.50	44.50	74.00	60.50	57.00	58.00	49.50
Pittsburgh	68.50	53.00	74.50	59.50	49.50	72.00	62.00	61.00	48.00	79.00	65.50	61.00	61.00	52.00
South:														
Atlanta	62.00	56.00	71.00	55.00	45.50	62.00	59.00	56.00	46.50	73.00	61.00	53.50	56.00	48.50
Birmingham	67.00	51.00	73.00	57.00	50.00	63.00	54.00	59.00	50.50	72.50	62.50	53.00	63.00	51.00
Dallas	63.50	54.00	68.00	57.50	44.50	62.50	58.50	55.00	44.50	74.00	64.00	51.00	56.50	49.00
Memphis	62.00	51.50	64.50	55.50	46.50	58.50	52.50	57.00	43.50	65.50	56.50	44.50	55.50	45.50
North Central:														
Chicago	77.00	65.00	79.00	65.00	53.50	73.00	68.50	67.00	54.00	83.00	70.00	65.50	67.50	58.50
Cleveland	74.50	59.50	76.00	65.00	52.00	70.00	66.00	66.00	52.50	83.00	68.00	64.00	66.50	57.00
Kansas City	66.00	56.00	74.50	57.00	47.50	64.50	62.50	60.50	46.00	74.00	63.00	55.00	66.00	51.50
Minneapolis-St. Paul	66.50	55.50	71.50	55.50	47.50	63.00	59.50	54.50	45.00	72.00	60.50	58.50	56.00	50.50
West:														
Los Angeles-Long Beach	79.00	60.00	80.00	67.00	55.50	76.00	72.50	71.50	56.00	84.00	72.00	67.00	69.00	59.00
Portland	75.00	55.50	74.50	63.00	48.50	66.50	63.50	64.50	47.50	77.00	65.00	57.00	62.50	54.50
San Francisco-Oakland	76.00	60.00	77.00	65.00	52.50	76.50	69.00	65.50	56.00	82.50	71.00	66.00	66.00	57.00
Seattle	68.50	57.00	71.00	59.50	51.50	68.00	64.50	62.00	50.00	77.00	66.50	62.00	62.00	51.50

¹ For definition, see footnote 1, table 1.² For survey months, see text footnote 1.

Pay Levels, 1956-57

Pay rates of individual employees varied greatly in each occupation and labor market studied. In general, average earnings of office and plant workers tended to be higher in manufacturing than in nonmanufacturing. Each of these groups, however, include a wide variety of industries that differ in level of rates paid. Such nonmanufacturing industries as public utilities and wholesale trade, for example, are characterized by pay levels that frequently equal or exceed manufacturing averages for comparable work in the same area. Job rate variation is also typical among and within establishments in the same industry. Particularly in the case of office workers, length of service influences individual pay rates within an occupation and establishment. The averages presented in the accompanying tables should thus be viewed in the light of the substantial overlapping that occurs in earnings distributions.

Office Occupations. Secretaries had the highest average weekly salaries of all women office jobs studied in most of the areas; their average salaries ranged from \$65.50 in Memphis to \$84 in Los Angeles-Long Beach and exceeded \$75 in 9 areas, including all 4 western areas (table 2). General stenographers averaged \$60 or more in all except Memphis (\$56.50) and Boston (\$58.50). The difference between the salaries of secretaries and general stenographers ranged from \$9 in Memphis and Boston to \$16 in New York City.

Accounting clerks (class A) had next to the highest salaries among the women's office jobs studied. Although their salaries were higher than those of secretaries in Birmingham and Kansas City, they usually averaged \$2 to \$6 less in the other areas.

Among the lower paid jobs, average salaries of office girls ranged from \$43.50 in Memphis to \$56 in Los Angeles-Long Beach and San Francisco-Oakland.

Class A accounting clerks had the highest weekly salaries among the six men's office jobs studied. Their average salaries ranged from \$80 in Boston to \$98 in Pittsburgh, and in 10 of the 17 areas they were between \$87 and \$91.50. Men's salaries were higher than women's in similar occupations. The average amount by which salaries of men exceeded those of women were as follows: Order clerks, \$20.50; payroll clerks, \$17.50; accounting clerks (class A), \$16; accounting clerks (class B), \$13; and tabulating-machine operators, \$9.50. By way of contrast, differences in averages for office boys and office girls were small in most areas.

Professional and Technical Occupations. Weekly salaries of industrial nurses, the only women's profession studied, ranged from \$73 in Boston to \$89 in Los Angeles-Long Beach (table 3), and fell in the range \$75 to \$85 in 13 areas. Whereas in a majority of the areas, nurses averaged from \$3 to \$7 more than secretaries, they averaged \$2.50 a week less in Portland, and the same as secretaries

in Cleveland. The greatest difference in pay was noted in Birmingham, where nurses averaged \$84.50 and secretaries, \$72.50.

Among men professional and technical workers, salaries of senior draftsmen averaged from \$100 to \$110 a week except in Dallas (\$88.50), Seattle (\$94), Pittsburgh (\$113), Birmingham and Chicago (\$115), and New York City (\$117). Weekly salaries of junior draftsmen ranged from \$66.50 in Memphis to \$83.50 in Portland.

Plant Occupations. Maintenance electricians and machinists averaged \$2.30 or more an hour in all areas except Dallas (table 4). Hourly averages for maintenance carpenters fell below \$2.30 in Atlanta, Boston, Dallas, and Memphis. Maintenance painters earned somewhat less and averaged below \$2 in Boston and Memphis and more than \$2.30 in 9 areas. Tool and die makers, the highest paid skilled maintenance workers studied, had average hourly earnings ranging from \$2.43 in Dallas to \$2.97 in San Francisco-Oakland. In Pittsburgh, Chicago, Cleveland, Kansas City, Los Angeles-Long Beach, and Seattle, average earnings in this trade were also \$2.70 or more.

Averages for laborers engaged in material handling illustrate the geographic differences that exist in unskilled worker pay. Among 4 southern areas, averages for laborers ranged from \$1.32 in Memphis to \$1.51 in Birmingham. Laborers averaged \$1.61 in Boston, \$1.72 in Philadelphia, and \$1.80 or more in the other 11 areas. The highest average (\$2.07) was recorded in San Francisco-Oakland and laborers averaged from \$1.94 to \$2 in the other western areas and in Cleveland, Minneapolis-St. Paul, and Pittsburgh. Men janitors earned from 16 to 38 cents an hour less than laborers with averages for watchmen generally in an intermediate position.

The highest pay levels for most of the men's plant jobs, either skilled or unskilled, were found in the San Francisco Bay area (table 4). However, truckdrivers (one of the more important jobs

^a A large proportion of the truckdrivers in New York City manufacturing establishments were paid on a bonus basis, while in San Francisco-Oakland the drivers were on an hourly rate. In nonmanufacturing establishments, however, truckdrivers averaged \$2.40 in San Francisco compared with \$2.36 in New York City.

^b For each area, all-industry average weekly salaries for 18 office jobs (5 men's and 13 women's jobs), and average hourly earnings for 6 maintenance trades, 4 custodial jobs, and 7 material movement jobs were multiplied by total employment (during winter of 1953-54) in each job in all industries and areas combined. Identical job weights were used in developing estimates for manufacturing and nonmanufacturing.

numerically) were highest paid in New York City (\$2.47), 5 cents more than in San Francisco-Oakland.⁵ Pay levels of less than \$2 for this job were found in the South and Boston.

Earnings data were collected for three women's nonoffice jobs—operators of passenger elevators, packers for shipping, and janitresses. Of these, shipping packers were the highest paid, with average hourly earnings ranging from \$1.13 in Memphis to \$1.76 in Los Angeles-Long Beach; they averaged more than \$1.40 in most of the areas. Janitresses' earnings ranged from 76 cents in Atlanta to \$1.72 in San Francisco-Oakland; they averaged about 85 cents in the other southern areas, and about \$1.35 to \$1.50 in most of the remaining areas. Earnings of women elevator operators ranged from 55 cents in Atlanta to \$1.75 in San Francisco-Oakland; these operators averaged less than \$1 in all southern areas, and less than \$1.50 in the remaining areas.

Interarea Wage Differentials

Estimates of pay level differences among labor markets can vary somewhat, depending upon the jobs selected for comparison. By averaging the pay for groupings of occupations, and assuming the existence of a constant employment relationship between jobs in all areas, estimates were constructed for office, skilled maintenance, custodial, and material movement workers.⁶ Although in-

TABLE 3. Average weekly salaries¹ for 4 professional and technical occupations, 17 areas, winter 1956-57²

Area	Draftsmen (men)			Women industrial nurses
	Leader	Senior	Junior	
Northeast:				
Boston.....	\$132.50	\$100.50	\$75.00	\$73.00
Buffalo.....	138.50	108.50	78.00	82.00
New York City.....	149.00	117.00	78.50	86.00
Philadelphia.....	137.50	102.50	76.00	77.00
Pittsburgh.....	149.00	113.00	82.50	85.50
South:				
Atlanta.....	145.00	101.50	72.00	81.50
Birmingham.....		115.00	70.00	84.50
Dallas.....	114.00	88.50	70.00	77.50
Memphis.....		106.50	66.50	75.00
North Central:				
Chicago.....	133.50	115.00	81.50	83.50
Cleveland.....	126.50	109.50	80.00	83.00
Kansas City.....		104.50	79.00	81.00
Minneapolis-St. Paul.....		101.50	77.00	79.00
West:				
Los Angeles-Long Beach.....	141.50	103.50	83.00	86.00
Portland.....		101.00	83.50	74.50
San Francisco-Oakland.....	122.00	104.50	80.50	83.50
Seattle.....	109.50	94.00	73.00	83.00

¹ For definition, see footnote 1, table 1.

² For survey months, see text footnote 1.

NOTE: Dashes indicate no data or insufficient data to warrant presentation.

TABLE 4. Average hourly earnings¹ for men in 14 plant occupations, 17 areas, winter 1956-57²

Area	Carpenters, maintenance	Electricians, maintenance	Guards	Helpers, trades, maintenance	Janitors	Laborers, material handling	Machinists, maintenance	Mechanics, (automotive) maintenance	Order fillers	Painters, maintenance	Tool and die makers ³	Truck-drivers	Truckers, power (fork-lift)	Watchmen
Northeast:														
Boston.....	\$2.22	\$2.32	\$1.72	\$1.83	\$1.42	\$1.61	\$2.30	\$2.07	\$1.67	\$1.96	\$2.51	\$1.98	\$1.87	\$1.42
Buffalo.....	2.50	2.63	2.03	2.16	1.70	1.86	2.56	2.26	1.95	2.23	2.69	2.13	2.07	1.61
New York City.....	2.38	2.40	1.69	1.89	1.54	1.80	2.56	2.30	1.83	2.18	2.69	2.47	2.26	1.65
Philadelphia.....	2.48	2.47	1.68	2.05	1.49	1.72	2.55	2.32	1.87	2.23	2.58	2.21	1.94	1.52
Pittsburgh.....	2.50	2.66	2.15	2.09	1.68	1.96	2.71	2.49	2.06	2.33	2.78	2.37	2.03	1.79
South:														
Atlanta.....	2.08	2.41	1.93	1.63	1.17	1.42	2.30	2.03	1.41	2.11	2.11	1.71	1.70	1.24
Birmingham.....	2.50	2.66	1.82	2.04	1.30	1.51	2.89	2.04	1.52	2.25	2.46	1.51	1.74	1.31
Dallas.....	2.16	2.18	1.72	1.48	1.16	1.33	2.26	1.97	1.44	2.04	2.43	1.63	1.61	1.20
Memphis.....	2.13	2.37	1.80	1.33	1.14	1.32	2.43	1.96	1.37	1.90	2.61	1.63	1.50	1.08
North Central:														
Chicago.....	2.65	2.77	1.94	2.11	1.69	1.86	2.75	2.59	1.87	2.75	2.92	2.38	2.08	1.31
Cleveland.....	2.47	2.58	2.03	2.12	1.67	1.98	2.59	2.43	1.96	2.35	2.71	2.28	2.09	1.60
Kansas City.....	2.52	2.53	1.73	1.98	1.47	1.82	2.53	2.31	1.82	2.56	2.73	2.04	2.04	1.50
Minneapolis-St. Paul.....	2.58	2.66	1.93	2.05	1.57	1.94	2.58	2.37	1.87	2.63	2.65	2.18	2.06	1.64
West:														
Los Angeles-Long Beach.....	2.52	2.67	2.02	2.09	1.64	2.00	2.68	2.46	2.03	2.41	2.78	2.26	2.14	1.72
Portland.....	2.63	2.66	2.03	2.05	1.61	1.99	2.61	2.42	1.97	2.63	2.73	2.19	2.08	1.72
San Francisco-Oakland.....	2.70	2.71	1.85	2.20	1.81	2.07	2.70	2.65	2.10	2.57	2.97	2.42	2.16	1.86
Seattle.....	2.38	2.51	1.88	1.98	1.57	1.94	2.48	2.43	2.00	2.39	2.72	2.25	2.04	1.73

¹ For definition, see footnote 1, table 1.² For survey months, see text footnote 1.³ Other than in tool and die jobbing shops.

NOTE: Dashes indicate insufficient data to warrant presentation.

terarea differences in occupational composition are thus eliminated, the resulting area estimates necessarily reflect the effect of local industrial composition. Interarea variation in types and importance

employmentwise of industries tends to explain the area pay relatives presented in tables 5 and 6.

For purposes of this comparison, pay levels for each grouping of jobs and industries in each labor market are expressed as percentages of like groups in New York City, adjusted for differences in survey timing.⁷ On this basis, the office (clerical) pay level in Los Angeles was 107 percent of the New York City level (table 5).⁸ Chicago, Cleveland, and San Francisco-Oakland pay levels were at 104-105 percent of New York City and pay relatives for other areas ranged from 85 for Memphis to 99 for Pittsburgh. This pattern closely followed the distribution of pay relatives for women, reflecting the predominance of women in office clerical employment. For men, pay relatives ranged from 117 in Cleveland to 96 in Atlanta and Boston, and were 108 or more in the 4 western areas and in Buffalo, Pittsburgh, Chicago, and Cleveland.

All-industry averages for skilled maintenance workers (based on 6 trades), expressed as percentages of the New York City level, ranged from 91 in Atlanta, Dallas, and Memphis to 112 in San

TABLE 5. Relative pay levels for office workers¹ in 17 areas, by industry division and sex, winter 1956-57²

[New York City=100]

Area	All industries		Manufacturing		Nonmanufacturing		Men and women	Men	Women	Men and women	Men	Women	Men and women	Men	Women
	Men	Women	Men and women	Men	Women	Men and women									
Northeast:															
Boston.....	98	96	87	88	94	87	88	96	87						
Buffalo.....	97	112	95	99	114	97	89	102	87						
New York City.....	100	100	100	100	100	100	100	100	100						
Philadelphia.....	92	101	91	92	99	91	90	100	89						
Pittsburgh.....	99	115	97	101	115	99	94	109	92						
South:															
Atlanta.....	96	89	92	94	92	90	97	89	89						
Birmingham.....	93	105	92	99	107	98	87	98	85						
Dallas.....	93	102	92	97	107	96	91	99	90						
Memphis.....	85	98	83	86	94	85	84	99	82						
North Central:															
Chicago.....	104	109	103	101	107	100	104	108	104						
Cleveland.....	105	117	104	104	116	103	101	113	99						
Kansas City.....	95	102	94	95	103	94	94	100	94						
Minneapolis-St. Paul.....	91	100	90	88	96	87	91	101	90						
West:															
Los Angeles-Long Beach.....	107	111	106	105	108	105	105	111	105						
Portland.....	97	108	96	96	107	94	98	109	96						
San Francisco-Oakland.....	105	109	104	107	109	107	103	107	103						
Seattle.....	100	110	99	104	114	103	98	109	96						

¹ These indexes are based on weekly salaries for the following occupations: Men—clerks, accounting, class A; clerks, accounting, class B; order clerks, office boys; tabulating-machine operators; Women—billers, machine (billing); bookkeeping-machine operators, class B; comptometer operators; accounting clerks, class A; accounting clerks, class B; file clerks, class B; payroll clerks; key-punch operators; secretaries; stenographers, general; switchboard operators; typists, class A; typists, class B.

² For description of methodology, see text footnote 6. For survey months, see text footnote 1.

³ For survey dates, see text footnote 1. The adjustment for timing differences assumed that New York City wages increased uniformly over the 12-month period between annual studies and that an intermediate level, such as for August 1956, could be obtained by adding the estimated wage increment to April 1956 pay levels.

⁴ If comparisons of office worker pay were based on average hourly earnings, instead of average weekly salaries, New York City would rank first among these areas. Whereas stenographers, for example, averaged a 36-hour work-week in New York City, they worked from 38 to 40 hours, on the average, in other areas.

TABLE 6. *Relative pay levels for plant workers¹ in 17 areas, by industry division and work category, winter 1956-57²*
 [New York City = 100]

Area	All industries				Manufacturing				Nonmanufacturing			
	Mainten- ance, custo- dial, and material move- ment	Mainten- ance	Custo- dial	Material move- ment	Mainten- ance, custo- dial, and material move- ment	Mainten- ance	Custo- dial	Material move- ment	Mainten- ance, custo- dial, and material move- ment	Mainten- ance	Custo- dial	Material move- ment
Northeast:												
Boston.....	93	93	94	92	93	92	98	91	93	94	89	94
Buffalo.....	106	106	109	105	107	104	115	105	97	100	89	101
New York City.....	100	100	100	100	100	100	100	100	100	100	100	100
Philadelphia.....	99	103	96	98	99	100	102	96	98	105	87	100
Pittsburgh.....	110	109	112	109	109	105	116	108	108	112	100	111
South:												
Atlanta.....	81	91	77	79	81	88	87	76	81	96	67	80
Birmingham.....	87	104	84	80	92	102	94	86	78	93	71	74
Dallas.....	80	91	77	77	85	90	89	81	75	84	68	74
Memphis.....	78	91	75	75	79	88	86	72	74	82	64	76
North Central:												
Chicago.....	105	111	106	102	103	104	108	100	108	121	103	105
Cleveland.....	108	106	108	109	108	104	114	107	104	105	90	111
Kansas City.....	90	104	95	99	103	101	109	101	95	105	81	98
Minneapolis-St. Paul.....	103	105	103	103	102	101	106	99	105	111	98	106
West:												
Los Angeles-Long Beach.....	107	107	107	107	106	102	112	104	109	114	102	110
Portland.....	106	107	106	105	105	103	109	104	105	110	98	107
San Francisco-Oakland.....	114	112	118	113	114	109	122	111	115	112	114	116
Seattle.....	107	105	107	108	107	101	110	108	108	108	104	110

¹ The indexes for the various plant-worker groups are based on data for the following occupations: Maintenance—automotive mechanics, carpenters, electricians, machinists, mechanics (machine repairmen), and painters; Custodial—guards, janitors, janitresses, and watchmen; Material movement—

forklift operators, material handling laborers, order fillers, shipping packers, shipping and receiving clerks, and truckdrivers.

² For description of methodology, see text footnote 6. For survey months, see text footnote 1.

Francisco-Oakland (table 6). Areas as widely dispersed geographically as Buffalo, Birmingham, Cleveland, Kansas City, Minneapolis-St. Paul, Los Angeles-Long Beach, Portland, and Seattle had pay relatives of 104 to 107.

Custodial workers were highest paid in the San Francisco Bay area (118 percent of New York City) and next to highest, with a relative of 112, in Pittsburgh. Grouped at 106 to 109 percent (of New York City) were Buffalo, Chicago, Cleveland, and the other 3 West Coast areas. Reflecting the generally lower pay level for unskilled workers in the South, custodial workers in Atlanta, Dallas, and Memphis averaged 75-77 percent of New York City pay.

Pay relatives for material movement workers fell into the same pattern of variation within and among regions. In the West, they ranged from 113 in the San Francisco Bay area to 105 in Portland; among North Central areas, from 109 in Cleveland to 99 in Kansas City; in the Northeast, from 109 in Pittsburgh to 92 in Boston; and in the South, from 80 in Birmingham to 75 in Memphis.

The differences in wage levels between the highest and lowest pay areas were about the same for

office workers and material movement workers in manufacturing and nonmanufacturing, but definitely greater for maintenance and custodial workers in nonmanufacturing, as shown below.

Job group	Percent difference between highest and lowest area relatives	
	Manufacturing	Nonmanufacturing
Office workers.....	24	25
Plant workers.....	44	55
Maintenance.....	24	48
Custodial.....	42	78
Material movement.....	51	57

Exclusion of the southern areas from the measure of wage dispersion would not materially affect the estimates for office workers in either industry group or for maintenance in manufacturing; in other cases, however, the estimates of wage spread outside the South would decline sharply. In the case of custodial workers in nonmanufacturing, for example, a 41-percent difference existed between high and low wage areas, whereas inclusion of the South raised the spread to 79 percent.

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Coverage of Collective Agreements in 17 Labor Markets, 1956-57

COLLECTIVE AGREEMENTS covered about four-fifths of the plant workers, as compared with a sixth of the office workers, employed in large and medium-size firms in 17 major labor markets studied by the U. S. Department of Labor's Bureau of Labor Statistics in late 1956 and early 1957.¹ The proportion of plant workers whose wages and working conditions were governed by collective agreements² exceeded 95 percent in San Francisco-Oakland and Seattle and was 80 percent or more in 8 other areas. In three areas, however, the plant worker coverage was under 55 percent. Los Angeles-Long Beach, Seattle, and Pittsburgh were the only areas studied in which as many as a fifth of the office workers were covered by union contracts.

Limitations of Data

These estimates, of course, do not represent the proportions of workers belonging to labor organizations, since there are union members in establishments not having labor-management agreements or which were counted in this study as not having such agreements. Also, there are workers who are not union members, but who are working under terms of a labor-management agreement. Nor do the estimates measure the proportions of workers covered by contracts within an area or industry division, since the establishments in the study do not represent all industries in an area and do not include comparatively small establishments. The establishment-size groups excluded account for a much smaller proportion of employment in manufacturing and public utilities than in the other industry divisions. Moreover, establishments with agreements limited to maintenance crafts, comprising a minority of the employees in the establishment, were considered as not covered by agreements. The construction and railroad industries are also excluded from these surveys.

These estimates, therefore, are representative only of medium and large employers in the in-

dustries within the scope of the study and in the areas studied. Within these limits, nevertheless, it is believed the estimates do provide an insight into the approximate proportions of workers covered by contracts in the significant industrial sectors covered by the Bureau's community wage survey program.

Area Characteristics

The proportion of workers covered by labor-management agreements differed substantially among the major areas studied. (See table.) Areas in the West generally had the highest proportion of both plant and office workers under agreements. Plant worker coverage in Los Angeles (75-79 percent) was, however, exceeded in 4 of 5 areas in the Northeast and in 3 of the 4 North Central areas, and equaled in Birmingham. According to an earlier study, 3 areas in the North Central, Detroit, Milwaukee, and St. Louis, were also among the areas having the highest proportions of plant workers under agreements.³

Office worker coverage estimates did not differ greatly among areas: all but 5 areas fell between 10 and 20 percent and the areas outside of that range were generally very close to it. In 2 of the 4 southern areas, Atlanta and Dallas, the proportion of plant workers under contract was substantially less than in the northern areas, but office worker coverage was almost as large as in other regions. Of the southern areas, Birmingham had the highest proportion of plant workers under contract, but the lowest proportion of office worker coverage.

¹ This article and that on p. 1216 of this issue are part of a series of analyses of wages, establishment practices, and supplementary wage provisions in 17 labor market areas. The 1956-57 detailed findings are available in BLS Bull. 1202 (1957). For results of the 1953-54 surveys, covering most of the same labor market areas as in 1956-57, see BLS Bull. 1173 (1955).

For further information on the scope of these surveys, including industry divisions and establishment size, see footnote 1 on p. 1216 of this issue.

² All plant workers or office workers in an establishment were considered to be covered by a labor-management contract if the terms of one or more such agreements applied to a majority in the establishment studied. Similarly, if less than half the workers in an establishment were covered by an agreement, that establishment and all of its employees were classified as not being covered by an agreement.

The term "plant workers" includes working foremen and all nonsupervisory employees engaged in nonoffice functions. "Office workers" include all office clerical employees and exclude executive, administrative, professional, and technical personnel.

³ See Extent of Collective Agreements in 17 Labor Markets, 1953-54 (in Monthly Labor Review, January 1955, pp. 64-68).

Proportion of workers in large and medium-size establishments covered by labor-management agreements¹ in 17 labor market areas, winter 1956-57

Area	Percent of plant workers employed in—						Percent of office workers employed in—						
	All industries ²	Manufacturing	Public utilities ³	Wholesale trade	Retail trade	Services	All industries ²	Manufacturing	Public utilities ³	Wholesale trade	Retail trade	Finance ⁴	Services
Northeast:													
Boston.....	70-74	75-79	95+	50-54	55-59	50-54	15-19	20-24	80-84	15-19	10-14	0-4	0-4
Buffalo.....	85-89	90-94	95+	-	-	-	15-19	15-19	80-84	-	-	-	-
New York City.....	80-84	90-94	95+	70-74	55-59	85-89	10-14	10-14	55-59	5-9	35-39	0-4	10-14
Philadelphia.....	80-84	85-89	80-84	70-74	55-59	80-84	15-19	20-24	65-69	0-4	15-19	0-4	10-14
Pittsburgh.....	90-94	95+	95+	75-79	45-49	-	20-24	20-24	65-69	10-14	25-29	0-4	-
South:													
Atlanta.....	50-54	60-64	80-84	40-44	5-9	-	15-19	3 40-44	40-44	5-9	0-4	0-4	-
Birmingham.....	75-79	90-94	80-84	-	-	-	5-9	0-4	35-39	-	-	-	-
Dallas.....	45-49	60-64	90-94	-	5-9	-	10-14	0-4	45-49	-	0-4	0-4	-
Memphis.....	50-54	75-79	90-94	-	-	-	5-9	10-14	45-49	-	-	-	-
North Central:													
Chicago.....	70-74	70-74	95+	65-69	45-49	80-84	15-19	10-14	70-74	5-9	20-24	0-4	0-4
Cleveland.....	90-94	90-94	95+	75-79	-	-	10-14	5-9	55-59	0-4	-	0-4	-
Kansas City.....	80-84	90-94	90-94	-	-	-	15-19	15-19	40-44	-	-	-	-
Minneapolis-St. Paul.....	85-89	90-94	95+	85-89	60-64	-	10-14	5-9	45-49	5-9	40-44	0-4	-
West:													
Los Angeles-Long Beach.....	75-79	75-79	95+	80-84	-	* 75-79	20-24	25-29	80-84	10-14	-	0-4	* 10-14
Portland.....	80-84	90-94	95+	-	60-64	-	15-19	0-4	55-59	-	35-39	-	-
San Francisco-Oakland.....	95+	95+	95+	90-94	85-89	-	15-19	10-14	70-74	0-4	30-64	0-4	-
Seattle.....	95+	95+	95+	-	-	95+	25-29	5-9	75-79	-	90-94	-	-

¹ Estimates relate to all workers (plant or office) employed in an establishment having a contract in effect covering a majority of the workers in their respective category. Coverage was limited to establishments with 51 or more employees except in the 8 largest areas, where the minimum size adopted was 101 employees in manufacturing, public utilities, and retail trade.

² Includes data for real estate in addition to those industry divisions shown separately.

³ Transportation (excluding railroads), communication, and other public utilities. Municipally owned utilities were excluded from the survey. All or major local transit operations in Boston, Chicago, Cleveland, New York

City, San Francisco-Oakland, and Seattle were municipally operated, as were electric utility operations in Los Angeles-Long Beach and Seattle and electric and gas operations in Memphis.

⁴ Finance, insurance, and real estate.

⁵ Reflects mainly the influence of 1 large establishment.

⁶ Excludes data for motion picture production and allied services. Data for these industries are, however, included in all industries.

NOTE: Dashes indicate insufficient data to warrant separate presentation.

Industry Characteristics

Although no great variation among areas was noted in the proportion of office workers covered by agreements, the proportion was not always the same when the data were considered by industry divisions. In almost all of the areas, a high proportion of office workers was found to be covered by agreements in public utilities—usually over half. In other industry divisions, furthermore, the variation among areas was considerable. Relatively high proportions of retail trade office workers were under agreement in Seattle, San Francisco-Oakland, and Minneapolis-St. Paul, even though all three of these areas had relatively low coverage of office workers in manufacturing. In Atlanta, coverage of office workers in manufacturing was as high as in public utilities.

Coverage for plant workers in industry divisions other than public utilities and manufacturing, in-

sofar as data were available, was most often highest in the service industries and lowest in retail trade. In a few areas, particularly in the West, the coverage in wholesale trade was substantial.

With the exception of public utilities, there did not seem to be any significant correlation between the extent of collective bargaining agreement coverage for office workers and that for plant workers. A high coverage of plant workers in a specific industry division was not necessarily accompanied by relatively high coverage for office workers. The Bureau's 1953-54 study⁴ had indicated, however, that when office workers were covered by an agreement, about two-thirds of these contracts had been negotiated by the union which represented the plant workers in the same establishment.

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⁴ Ibid.

Foundry Skill Requirements and Training Needs

A SHARP INCREASE in training is needed to provide the skilled manpower that will be required in the foundry industry by 1960, according to a study by the U. S. Department of Labor's Bureau of Apprenticeship and Training of production foundries in January–February 1956 and job foundries in December 1956–January 1957.¹ Additional training programs are especially needed for patternmakers, foundry technicians, maintenance electricians, and maintenance mechanics. Changing technology in the industry and industrial requirements for high quality castings² have increased the need for highly skilled workers in many foundry occupations.

To determine the impact of mechanization on skill requirements and training needs, two groups of foundries were studied by field representatives of the Bureau of Apprenticeship and Training, and State apprenticeship agencies, in 1956–57. The first phase of the study covered a group of production foundries that had become highly mechanized and have long production runs, while the second phase covered job foundries that were considerably less mechanized.³ The foundries participating in the study employ, altogether, over 15 percent of the workers in the industry. The data obtained in the study provide some insight into the training situation in this important industry.

Staffing Patterns

The vast majority of employees in both groups of foundries were production workers. In the job foundries, 83 percent were production workers, which was only slightly lower than in the production foundries (table 1). However, when attention is focused on some individual occupations in the production-worker category, significant differences in occupational staffing patterns appear. The greater use of mechanical equipment in production foundries, compared with job foundries, was reflected in the employment of relatively more maintenance mechanics and electricians in the former. A higher proportion of the work force was also employed as patternmakers and

machine coremakers in production foundries. On the other hand, job foundries had a higher proportion of workers employed as molders and hand coremakers. As might be expected, relatively more engineers were employed in production foundries than in the job shops. However, the relative proportion of technicians (primarily sand technologists and metallurgical assistants) was approximately the same.

A noticeably higher proportion of the personnel in job foundries held administrative, managerial, and office jobs. This may result from the fact that many of the job shops were small establishments in which managers frequently had to perform functions that larger establishments would assign to specialized workers. For example, the manager of a small foundry may perform quality control work that a large shop would assign to its engineering staff.

Training Time Required

To determine the length of the training period required in certain key occupations, the foundries were asked how long it took workers in their establishments to acquire necessary skills. The training periods required varied considerably among different occupations (table 2). For ex-

¹ This article summarizes two reports entitled, respectively, "Foundry Training Needs" and "Foundry Training Needs, Job Foundries" (U. S. Department of Labor, Bureau of Apprenticeship and Training, May 5, 1956, and May 8, 1957).

Data from the surveys are also presented in two articles, *Foundry Training Needs, and Foundry Training Needs in Semiproduction, Specialty, and Job Shops* (in *Foundry*, Cleveland, Ohio, July 1956, pp. 96–99, and July 1957 pp. 110–113, respectively). See, also, *Can Mechanization Solve the Coming Manpower Shortage?* (in *Modern Castings*, Des Plaines, Ill., July 1957, pp. 24–25).

² In a typical foundry, castings are produced by pouring molten metal into forms, called molds. The molds are made by packing sand around a wood or metal pattern. After the pattern has been removed from a mold, the cavity that remains is filled with molten metal. Should hollows or holes be desired in the casting, a molder places sand bodies, called cores, in the cavity before the metal is poured. When the metal has solidified, the mold is shaken until the sand walls of the mold crumble around the completed casting. Chillers and grinding machine operators then remove any unwanted projections from castings.

³ These studies were initiated at the request of the foundry industry. An advisory committee (Fred G. Sefing, International Nickel Co., chairman) from the industry assisted at all stages. Selection of foundries to be included in the study was made in cooperation with trade associations in the foundry industry (American Foundrymen's Society, Gray Iron Founders' Society, Inc., Steel Founders' Society of America, Malleable Founders' Society, and Non-Ferrous Founders' Society). To select plants that would be representative, consideration was given to their location, type of metal cast, and number of employees. Only establishments that were known to have long production runs and to be highly mechanized were included in the group of production foundries. Of the 44 production foundries selected for study, 41 provided usable information. Data were also received from 101 of the 145 job shops included in the study.

TABLE 1. Percentage distribution of employees in selected foundries, by occupation, 1956-57¹

Occupation	Production foundries	Job foundries
Total.....	100.0	100.0
Production workers.....		
Chipper and grinder.....	85.3	83.0
Coremaker, hand.....	9.6	10.9
Coremaker, machine.....	1.7	4.3
Electrician, maintenance.....	3.6	2.1
Ladleman.....	1.3	.6
Mechanic, maintenance.....	1.6	2.6
Melter.....	3.3	2.3
Molder, hand, bench.....	1.0	2.0
Molder, floor.....	.9	1.7
Molder, machine.....	.6	4.5
Patternmaker.....	6.9	8.9
Sand preparer.....	2.2	1.6
Shakeout man.....	1.2	2.3
Trainee.....	2.9	4.5
Other production workers ²	1.6	2.9
Technician.....	46.9	31.8
Foreman (nonworking).....	4.9	4.6
Engineer.....	1.4	.9
Administrative, managerial, and office personnel.....	7.5	10.4

¹ Based on reports from 41 production foundries employing 32,258 workers in January-February 1956 and 101 job foundries employing 16,829 workers in December 1956-January 1957. Percentages shown here may differ slightly from figures in the reports cited previously because of modification in the occupational groupings and because of rounding.

² The large majority of workers in this category are employed in occupations requiring little or no training.

ample, an average (median) training time of only 3 months was reported for ladleman, compared with 4 years of patternmaker.

Considerable variation was also observed in the training times reported by different foundries for the same occupations, notably hand coremaker. In production foundries, the median training time reported for hand coremakers was 21 months, but the upper one-fourth of the responses indicated 48 months or more and the lower one-fourth of the foundries reported 5 months or less. Almost as great a variation in training times in this occupation was found in job shops (median 24 months, upper quartile 48 months, and lower quartile 12 months). To some extent, variations in length of training period among foundries reflect differences in attitude toward training and the amount of time and effort that should be devoted to it. However, most of the differences in training times reflect variation in job content and performance standards. Castings may vary greatly, from one foundry to another, in size, complexity, and precision standards. Therefore, the skill requirements for a particular occupation

* The data on employment expectations are based on reports from 61 job foundries and 27 production foundries.

Estimates made by the two groups of foundries regarding anticipated changes in their employment, while helpful in assessing their training needs, should not be taken as forecasts of employment levels for the entire foundry industry. Only a small growth in employment in the foundry industry as a whole is foreseen in the 1957 edition of the Occupational Outlook Handbook (BLS Bull. 1215), p. 353.

may be considerably higher in some foundries than in others.

The training periods reported for patternmakers and for maintenance electricians were generally longer than for other foundry occupations. The job shops also reported that it usually took 48 months to train bench and floor molders, but in production foundries the median training time was 38 months.

Future Manpower Requirements

Additional Workers Needed. The foundries included in the study were asked to estimate their expected employment in various occupations in 1960. Data on plans to install new machinery and equipment were also requested. In forecasting 1960 employment, the foundries were asked to assume that general business conditions and the international situation would not change significantly.

More than three-fourths of the production foundries providing an estimate indicated that they planned to increase their capacity and to install new and improved equipment between 1956 and 1960. The equipment most frequently mentioned was new molding machinery, especially equipment for shell molding. In line with these plans, the production foundries anticipated a 20-percent increase in employment by 1960 (table 3).⁴ The most striking increase anticipated was that for foundry technicians. A 32-percent increase was forecast for this occupation, which is noticeably larger than the 21-percent increase anticipated

TABLE 2. Length of training period required for 12 occupations in selected foundries (median and upper and lower quartiles)

Occupations	Length of training period (in months)					
	Production foundries			Job foundries		
	Lower quar- tile	Me- dian	Upper quar- tile	Lower quar- tile	Me- dian	Upper quar- tile
Ladleman.....	1	3	9	1	2	6
Chipper and grinder.....	1	3	6	2	3	6
Sand preparer.....	3	6	9	1	5	6
Molder, machine.....	2	6	21	6	9	24
Coremaker, machine.....	3	6	24	3	6	12
Melter.....	9	12	39	6	12	24
Coremaker, hand.....	5	21	48	12	24	48
Molder, hand, bench.....	18	38	48	24	48	48
Molder, floor.....	24	38	48	24	48	48
Electrician, maintenance.....	33	44	48	36	48	48
Mechanic, maintenance.....	27	48	48	24	36	48
Patternmaker.....	48	48	60	42	48	60

TABLE 3. Percentage increase expected between 1956 and 1960 in employment, selected foundries, by occupation¹

Occupation	Production foundries	Job foundries
All occupations	19.5	5.9
Production workers	19.5	6.3
Chipper and grinder	16.9	14.1
Coremaker, hand	2.6	13.9
Coremaker, machine	25.5	4.7
Electrician, maintenance	30.5	4.5
Fitter	20.5	2.4
Mechanic, maintenance	17.4	14.1
Melter	13.1	4.0
Molder, hand, bench	7.0	10.2
Molder, floor	12.8	6.6
Molder, machine	18.3	8.2
Patternmaker	27.6	7.2
Sand preparer	19.4	2.7
Shakeout man	11.2	11.8
Trainees	33.8	11.3
Other production workers	20.2	44.4
Technician	32.1	17.0
Foreman (nonworking)	10.0	4
Engineer	20.8	30.7
Administrative, managerial, and office personnel	24.4	2.3

¹ Based on reports from 61 job foundries and 27 production foundries. For survey dates, see footnote 1, table 1.

for engineers. The increased emphasis on technicians reversed the experience reported by these foundries with regard to the period between 1950 and 1956, when the employment of technicians increased only 6 percent, as compared with a 17-percent increase in engineers.

Administrative, managerial, and office personnel in production foundries were expected to increase 24 percent, or a little more than the overall increase expected in total employment by these foundries. A relatively small increase (10 percent) was expected in the employment of foremen. Possibly some of the functions formerly performed by foremen will be handled by technicians and engineers. For example, in an increasing number of foundries, engineers are assigned to production planning, whereas in the past, foremen were responsible for such work. Increases were also expected by production foundries in some of the more important manual occupations. Sharp gains were anticipated for maintenance electricians (31 percent) and patternmakers (28 percent). Developing additional patternmakers and maintenance workers is one of the major training jobs confronting the industry. As has been indicated, it generally takes about 4 years to develop craftsmen in these occupations.

The job foundries surveyed anticipated an overall 6-percent increase in their employment by 1960. The number of engineers employed was expected to rise by 31 percent. Contrary to the sharp increase foreseen for technician employment in pro-

duction foundries, job foundries anticipated a somewhat smaller increase (17 percent). The greater emphasis on engineers is a continuation of the trend that has prevailed in recent years. Employment of engineers in job shops was found to have increased approximately 40 percent from 1950 to 1956, while employment of technicians increased about 30 percent. The increasing employment of engineers in job foundries has reflected the increased demand for high quality castings, as well as the efforts of foundries to improve the efficiency of their operations. Maintenance mechanics and hand coremakers are expected to increase approximately 14 percent, which is well above the 6-percent rise expected in overall employment in the job shops.

Although the job foundries do not have long production runs that make it feasible to become highly mechanized, slightly more than half of such foundries had definite plans for installing additional machinery or mechanical equipment by 1960. Another fifth of the job shops were considering the matter, but had not yet formulated definite plans.

Replacement Needs. In addition to workers who need to be trained to fill new positions, personnel should be trained to replace employees who die, retire, or move to other jobs. The job shops reported that the replacement problem would require increased attention during the next few years. Workers in key foundry occupations have a high average age. More than 26 percent of the patternmakers in job shops were over 55. In fact, 17 percent of the patternmakers were over 60 years of age. A high proportion of older workers was also reported in hand molding and in hand coremaking.

In contrast to the situation in job shops, only a few of the production foundries indicated that providing replacements for the present work force would be a major training problem. About one-fourth of the production foundries did foresee a need for replacing many of their patternmakers, about 20 percent of whom were over 55 years of age.

Training Programs

Planned Training in Foundries. A high proportion of the foundries included in the study were

conducting planned training programs in 1956 (table 4). The proportion of establishments which reported organized training was somewhat higher in production foundries (80 percent) than in job shops (68 percent). This may be largely because many of the job shops were relatively small establishments which often rely on informal training on the job. Some indication of the extent to which foundry workers acquire skills informally in hand molding and hand coremaking was provided by a sample survey conducted by the Bureau of Labor Statistics in 1952. In that survey, it was found that approximately 40 percent of the workers had learned the trades without participating in organized training programs.⁵

Apprenticeship programs were sponsored by about one-half of the production foundries studied and about one-third of the job shops. Organized training on the job, other than apprenticeship, was reported by three-fifths of the production foundries studied and two-fifths of the job shops. Some plants were conducting both apprenticeship and other training. A total of 989 trainees were reported, most of them in molding, coremaking, or patternmaking.

Plans to develop training programs were reported by some of the companies that were not conducting organized training at the time of the survey. For example, a production foundry that employed approximately 350 workers indicated that it had formerly used a trial-and-error method for developing foundrymen. When additional foundrymen were needed, likely looking prospects were given a chance to try molding or coremaking under the supervision of a working foreman.

⁵ See *Mobility of Molders and Coremakers, 1940-52* (BLS Bull. 1162, 1954), p. 37.

TABLE 4. Number of foundries conducting apprenticeship or other planned training programs, by size of foundry, 1956-57¹

Size of foundry (total employment)	Production foundries				Job foundries			
	Number studied	Total with program ²	Apprenticeship	Other training	Number studied	Total with program ²	Apprenticeship	Other training
Total.....	41	33	19	25	101	69	31	40
Less than 50 workers.....					23	13	10	3
50-99 workers.....	1	1	1	1	21	15	6	10
100-249 workers.....	7	7	3	7	36	23	9	15
250-499 workers.....	11	7	3	4	17	14	4	10
500-999 workers.....	12	9	5	8	4	4	2	2
1,000 or more workers.....	10	9	7	5				

¹ For survey dates, see footnote 1, table 1.

² Figures shown do not necessarily add to totals, as some foundries conducted both apprenticeship and other planned training.

Those who demonstrated aptitude for the work were allowed to continue in it. Owing to an increased need for skilled workers and the weaknesses of its informal program, the foundry has now decided to hire a training director and conduct a planned training program.

Promotion of Additional Training

To meet the growing need for trained personnel, foundry trade associations have given increased emphasis to training. In 1957, the American Foundrymen's Society initiated a series of technical courses designed to assist foundries in developing employees for key positions. The first group of courses will be of 1 week's duration and will cover sand testing, sand control, advanced sand technology, work methods and performance standards, and cupola melting of iron. The courses are designed for foundry employees who are already thoroughly familiar with foundry operations.

An annual seminar for vocational instructors was initiated by the same Society in 1956. These sessions were organized to give teachers of foundry classes in high schools and vocational schools information about the latest technological advances in the industry. More than 85 instructors attended the 1957 seminar at Michigan State University in East Lansing.

To promote good training practices, the Society also sponsors an annual apprenticeship contest. The contest is open to any apprentice or trainee in the foundry industry with no more than 5 years' patternmaking experience and no more than 4 years' experience in molding. Local chapters of the Society are encouraged to hold local elimination contests to select entrants in the

national contest. Outstanding apprentices and outstanding training programs are afforded national recognition through such contests.

Local chapters of foundry trade associations have initiated programs designed to encourage more young people to enter the industry. Arrangements have been made with high school authorities for participation in career days and other guidance activities. Some of the chapters have developed literature describing opportunities for careers in foundry occupations in the community.

International unions representing workers in the foundry industry also encourage the development of training programs, particularly apprenticeship. Group training programs are being sponsored through areawide labor-management apprenticeship committees. Such programs are of particular value to the small establishments that may not be in a position to maintain their own training program. Together with foundry management, the International Molders and Foundry Workers have established about 30, and the Pattern Makers' League about 35, such committees.

The U. S. Department of Labor's Bureau of Apprenticeship and Training provides technical assistance and information on training to industrial establishments seeking to organize or improve training on the job. The Bureau's field representatives, located in about 150 cities throughout the country, assist industrial enterprises in the development of training programs to meet the particular requirements of establishments for trained workers.

Importance of the Industry

The metal castings produced by the foundry industry play an essential role in the Nation's

economy. Castings are basic components of much of the machinery and equipment that is used in industry and the home. Motor vehicles, machine tools, airplanes, agricultural implements, railroad equipment, and household appliances are some of the end products that contain metal castings. The production of guns, tanks, and other equipment needed for national defense also require high quality castings. Each casting is precision made to provide the exact part needed. The foundry industry successfully casts very complex shapes, ranging in weight from less than a pound to over 200 tons.

The economy's diverse needs for castings provide business opportunities for both large and small foundries. A large production foundry may concentrate on turning out castings for automobile engines, producing thousands of similar castings for cylinder blocks. On the other hand, a job shop may make a wide variety of castings for many different customers, frequently filling an order for a single casting. A total of approximately 5,000 foundries were producing castings in 1957, including about 1,500 "captive" foundries that produced most of their castings for parent companies.

The introduction of new machinery and improved production techniques has raised the foundry industry's potential for producing high quality castings efficiently. The industry needs to match its planning for new technology with planning on the manpower side. Planned programs must be organized to attract, develop, and retain qualified personnel. The success of this undertaking will require the cooperation of management, labor unions, educational institutions, and other community organizations.

—JOHN S. McCauley
Bureau of Apprenticeship and Training

State Workmen's Compensation Legislation in 1957

THE 45 State¹ and 3 territorial legislatures meeting in regular session in 1957 enacted well over 200 laws relating to workmen's compensation, covering a wide variety of provisions. Major benefit increases were approved in 29 States and in Hawaii and Puerto Rico. Other major improvements included provision for unlimited medical benefits in 2 States, extension of second-injury benefits to workers suffering permanent-partial, as well as permanent-total, disability in 2 jurisdictions; extension of coverage to radiation diseases in 3 States, and the enactment for the first time of provisions relating to rehabilitation in 1 State. In New Mexico, benefits were raised and several other standards improved, but the State Supreme Court declared the act unconstitutional, August 30. The former law is still in effect.

Benefits

Cash Benefits. All of the 31 laws² raising cash benefits increased either the weekly amount or the total amount payable, or both. Most of these laws raised such benefits payable in event of death and for all major types of disability. In every law but that of Wyoming, maximum weekly rates were raised. In Wyoming, the maximum rate was not raised, but the maximum may now be paid if the worker has only 4 dependents instead of 6. In five of these laws, where a total maximum amount is prescribed,³ however, the maximum total remained the same as before for death or one or more types of disability. In Massachusetts, the only change was to raise from \$3 to \$4 the maximum weekly benefits for each dependent child.

Puerto Rico raised from 50 to 60 the percentage of average weekly wages used to compute benefits. On the other hand, Illinois reduced the percentage for permanent-partial nonschedule disability⁴ from 75-97½ percent (according to the number of dependents) to 65-80 percent of wage loss. Among the States, such percentages range from 40 to 97½ percent, but most fall between 60 and 66½ percent, including dependents' benefits.

Thirty of the 31 laws (all but that of Wyoming) raised the maximum amount that may be paid weekly for temporary-total disability—the most common type of disability for which compensation payments are awarded. The amount of increase ranged from \$2 to \$5 in 18 laws, from over \$5 to \$10 in 8 laws, and from over \$10 to \$25 in 3. The amount of the Massachusetts increase depends upon the number of dependents. There are now 22 jurisdictions that pay a maximum of \$40 a week or more for temporary-total disability, with 10 of these setting a maximum of \$50 or more a week. Twenty-eight of the jurisdictions pay \$30 or more but less than \$40. Only 2 now provide for a maximum of less than \$30.

Medical Benefits. Medical benefits were improved in 11 States.⁵ Unlimited or full medical benefits were provided for the first time in Texas and Nevada. Full medical benefits are now provided by 35 States, the District of Columbia, Hawaii, and Puerto Rico.

Changes in 9 of the other 11 States improving medical benefits were made in the amount payable, the time for which benefits are paid, or types of services provided. The maximum amount was raised from \$1,000 to \$1,500 in Colorado. In Alabama, the maximum was raised from \$1,000 to \$1,200, and the time limitation increased from 90 days to 6 months. Montana extended the maximum period from 18 to 36 months; it retained the basic \$2,500 monetary limit, but authorized the Industrial Accident Board to allow an additional unlimited amount (formerly not more than \$1,000) in total disability cases. Illinois, Montana, Utah, Vermont, and Wyoming liberalized provisions concerning artificial members by increasing amounts payable for such members, providing for replacement as well as initial furnishing, or specifying the additional types of pros-

¹ The legislatures of Kentucky, Mississippi, and Virginia did not meet in regular session in 1957.

² Adopted, respectively, in Alabama, California, Colorado, Connecticut, Hawaii, Idaho, Illinois, Indiana, Kansas, Maine, Maryland, Massachusetts, Minnesota, Missouri, Montana, Nebraska, Nevada, New Hampshire, North Carolina, Oklahoma, Oregon, Puerto Rico, South Dakota, Tennessee, Texas, Utah, Vermont, Washington, West Virginia, Wisconsin, and Wyoming.

³ Kansas, Maryland, Minnesota, Missouri, and North Carolina.

⁴ Disabilities not listed in the schedule. The schedule injuries are loss, or loss of use, of an arm, leg, eye, ear, etc.

⁵ Alabama, Colorado, Illinois, Missouri, Montana, Nevada, Tennessee, Texas, Utah, Vermont, Wyoming.

theses to be furnished. Vermont also extended both time and monetary limitations on medical services in case of occupational diseases. Missouri provided travel allowances in connection with medical examinations or medical treatment and Wyoming increased the travel allowance in connection with obtaining an artificial member. Tennessee provided for necessary nursing services for 1 year.

Burial Allowances. Burial allowances were raised in 10 States. The maximum amount payable was raised to \$525 in Utah; to \$500 in Colorado, Florida, Maryland, Montana, and Washington; and in Massachusetts, to \$500 where there are dependents and \$1,000 where there are no dependents; to \$400 in Alabama and Oregon; and to \$350 in Nebraska.

Time Limits and Waiting Period

Time limits for filing claims for benefits were liberalized in Kansas, Hawaii, Maine, Maryland, and Montana. New York extended the period of eligibility for benefits in certain cases where an employee with silicosis or other dust disease is transferred to a different job with the same employer. Oregon extended the time within which a worker claiming benefits for an occupational disease may reject an award of the Industrial Accident Commission, for purposes of appeal.

No State changed its provisions governing the waiting period—that is, the number of days which must elapse after disability before a worker becomes eligible for benefits. However, four States made liberalizing changes as to the payment that is retroactive to the date of disability, providing the disability lasts a given length of time. Maryland provided for retroactivity after 28 days, and Washington, after 30 days. Connecticut made benefits retroactive after 10 days, rather than 2 weeks.

Coverage

In about half of the States one or more measures relating to coverage were passed. The most far-reaching changes were in Illinois, where coverage of the occupational diseases act was made compulsory rather than elective; and in Puerto Rico,

where coverage was extended to all employers regardless of number employed, to domestic servants and elected public officials, and to additional occupational diseases.

Current interest in protection against radiation hazards was reflected in Illinois, New York, and Oklahoma. The Illinois law was extended to any enterprise wherein atomic radiation is manufactured, used, generated, stored, or conveyed in dangerous quantities or in dangerous circumstances. In New York, disability due to ionizing radiation was added to the previous coverage of radium poisoning or disability due to radioactive properties of substances or to X-rays. Oklahoma extended coverage to known diseases traceable to fissionable or radioactive materials and not otherwise specifically listed.

Other occupational diseases newly covered include bursitis, synovitis, and tenosynovitis in Colorado, and psittacosis and certain skin infections in North Carolina. Alaska, California, and Minnesota added tuberculosis, coronary sclerosis, or cardiovascular diseases contracted under certain conditions by nurses, medical laboratory employees, policemen, or fishermen. At present, 2 States have no occupational disease coverage; 19 jurisdictions cover specified diseases; the others have full coverage.

The trend toward more extensive coverage of public employees was evident again this year. Practically all workmen's compensation laws cover public employees, with, however, wide variations in the extent of such coverage. The most frequent change in coverage was extension of the workmen's compensation law to certain groups of public employees. Some of the groups included were hospital employees in Wyoming; guards and attendants in penitentiaries, mental hospitals, and similar institutions in Oklahoma; school teachers in New York State, rather than only in New York City; volunteer firemen in South Dakota, volunteer policemen in Nevada, and auxiliary police in Pennsylvania; firemen injured outside their jurisdiction in Michigan; civil defense personnel while on training exercises in Illinois; and municipal employees on authorized employment outside municipal limits in South Carolina.

Among other extensions of coverage were motor transport of manufactured or processed products and repairing or servicing electrical and other

appliances in Oklahoma, and logging operations in Maine. Women's hairdressing shops, public places serving alcoholic drinks, and public food-serving establishments where there are hazards of scalding, injury from meat-slicing machines, and similar accidents were added to coverage in Illinois. The New Jersey and South Dakota laws extended coverage to corporation officers, and the Nebraska law added employees of non-resident employers who are performing work in that State.

Rehabilitation

Rehabilitation of injured workers received impetus this year in four States. In one of these—Texas—provision for rehabilitation services was made for the first time. Twenty-two jurisdictions now have some provision in their workmen's compensation law for rehabilitation. The Texas act required the furnishing of necessary physical rehabilitation, including proper fitting and training in use of prosthetic appliances. This State also specifically provided for cooperation between the Industrial Accident Board and the Vocational Rehabilitation Division of the Texas Education Agency for the vocational rehabilitation of workers.

Minnesota raised from \$40 to \$45 a week the compensation paid an injured worker during re-training, which is in addition to disability benefits. Utah raised from \$600 to \$700 the maximum amount payable from the second-injury fund for rehabilitation. The amount payable by the employer for rehabilitation of a person suffering permanent-partial disability from an occupational disease was also raised from \$30 to \$35 a week for the first 10 weeks and from \$16.50 to \$19.25 a week thereafter, until the total award is paid. Missouri directed the Board of Rehabilitation to explore methods for returning rehabilitated employees to work, and to cooperate with the Department of Education and the State Employment Service in finding employment for such workers.

Second-Injury Funds

No new legislation setting up second-injury funds⁶ was enacted this year. There are five States⁷ without such provisions in their laws. Nine States and Hawaii amended their second-injury fund as to coverage or financing arrangements.

Four jurisdictions liberalized coverage. Minnesota made benefits payable whether the worker suffered a permanent or temporary, partial or total disability, whenever the resulting combined disability is substantially greater than would have resulted from the second injury alone. Formerly, benefits were payable from the fund only in second-injury cases resulting in permanent-total disability. In most cases coming under the Minnesota second-injury fund, the employer pays the full compensation but may be reimbursed from the fund for payments continuing in excess of 104 weeks. To be entitled to reimbursement, the employer must already have registered with the Industrial Commission, prior to the second injury, the names of employees with preexisting physical impairments other than the loss, or loss of use, of a member.

Hawaii newly provided benefits if the injury results in an increase of the extent of a former permanent-partial disability. Formerly, the use of the fund was limited to cases of injury resulting in permanent-total disability. Hawaii also provided for payments up to \$1,000 from the second-injury fund for medical benefits in cases where an employer has failed to obtain insurance and is financially unable to pay.

The Ohio law as amended in 1955 provided for payment of benefits from the fund for the proportion of any injury that could be attributed to a specified preexisting condition such as epilepsy, arthritis, or cerebral palsy. This list of pre-existing conditions was enlarged this year to include: hemophilia, chronic osteomyelitis, ankylosis of joints, hyperinsulinism, muscular dystrophies, arteriosclerosis, thrombo-phlebitis, and varicose veins. The Massachusetts law was amended to specify that death or disability benefits awarded to persons suffering a second injury shall include the same dependents' allowances as are in effect for a first injury.

Texas, Utah, and New York increased the amounts to be paid into the second-injury fund.

⁶ A second-injury fund is a special fund used to pay for that portion of a disability resulting when a worker who already has a disability sustains a second injury. In such cases, the second employer pays benefits only for the second injury, and the payments for the difference between the resulting disability and the disability that would have resulted from the second injury alone are paid from the second-injury fund.

⁷ Georgia, Louisiana, New Mexico, Nevada, and Virginia.

Texas raised the amount from \$1,500 to \$3,000, and Utah from \$2,200 to \$2,566.67, for each no-dependency death case. New York provided that when the annual assessment is collected for the year ending March 31, 1957, an additional assessment of 1 percent of the total compensation paid by each insurance carrier during the year shall also be paid.

Illinois provided for a \$100 contribution into the fund in each death case where there are dependents, specifying, however, that between July 1, 1957, and June 30, 1958, such contribution is to be at the rate of \$400. This amendment replaces the former provision for contribution of \$400 in each no-dependency death case.

A North Carolina amendment now makes it permissive instead of compulsory for the Industrial Commission to make certain assessments in amputation cases. California extended until 1959 the 1955 amendments which temporarily restricted eligibility for second-injury fund benefits and reduced benefits in certain cases.

Closely allied to second-injury fund provisions are those dealing with waivers of benefits for a second injury, by employees who are already suffering from a disability. In most States, such waivers are prohibited, or permitted only in cases of certain occupational diseases. New Hampshire, which formerly prohibited waivers, provided that employees with physical defects other than occupational diseases may, subject to the approval of the labor commissioner, waive their rights to benefits in case of injury attributable in a material degree to the physical defect. The Texas law, which permitted waivers only in cases of silicosis or asbestosis, was amended to permit waivers by employees of the Texas Agricultural and Mechanical College, regardless of type of disability.

Future Studies

Eight States and Hawaii provided for studies in different areas of workmen's compensation. Benefit costs were the focus of studies proposed in Alaska, California, Nevada, and Pennsylvania. In Alaska, the Legislative Council is to ascertain possible methods of financing benefits at lower cost. Pennsylvania requested the Joint State Government Commission to make a study of the Occupational Disease Act and administration of the fund, in view of the large and sudden increase in cost to the State. Nevada proposed that special committees of the Idaho, Oregon, and Nevada legislatures make a joint study of problems arising from duplicate costs of coverage for workers residing in one of these States and working in another. In California, the Department of Finance and the Attorney General were directed to study the financial and other effects of the second-injury provisions.

The Industrial Accident Commission in Oregon and a special commission in Rhode Island were asked to make studies of the feasibility of liberalizing second-injury provisions. New York appropriated up to \$135,000 for the Workmen's Compensation Board's use in studying rehabilitation problems. In Massachusetts, studies were requested on raising benefits for civil defense volunteers, and to permit an employee to appeal to the State's district courts, rather than to the Division of Industrial Accidents, for determinations in disputed cases. The North Dakota interim legislative committee studying the Workmen's Compensation Bureau was continued through the 1957-59 biennium.

—BEATRICE McCONNELL
Bureau of Labor Standards

Characteristics of the Long-Term Unemployed

SINCE 1947, the average number of persons unemployed for 15 weeks or more has ranged from 200,000 to slightly over 800,000. Of the 2.5 million workers unemployed in an average week during 1956, approximately 500,000, or somewhat less than 1 percent of the labor force, had been out of work for 15 weeks or more. Almost one-half of the unemployed had been out of work less than a month, and the remainder from 5 to 14 weeks. While the length of short-term or frictional unemployment cannot be defined precisely, many persons in this category were young people just out of school, housewives entering or reentering the labor force, others changing jobs voluntarily to better work situations, or those temporarily laid off in seasonal industries. Much of this short-term unemployment is necessary to the functioning of a free economy. Extended unemployment, however, causes serious financial and social hardships for the individuals affected and is an economic waste involving a substantial loss to the Nation of productive power.

An examination of data from the U. S. Bureau of the Census¹ reveals that the changes in the long-term unemployment level are directly related to changes in total unemployment. During periods of higher unemployment, the proportion of long-term unemployed is greater than during periods of low unemployment. Persons most subject to long-term unemployment are young workers, older men, workers in certain highly seasonal industries such as construction, or in industries declining in employment such as mining and textiles, and less skilled and less educated workers.

Age and Sex Characteristics

The proportion of extended unemployment differs significantly among various demographic groups. Those most affected are men 65 years of age and older, and young people between the ages of 14 and 24. The proportion of workers in these groups who were unemployed for 15 or more weeks during 1956 was almost twice as high as for men 25 to 44 years of age (table 1).

Older workers once unemployed, have more difficulty in finding work than younger persons.

Over one-third of the unemployed men 65 years of age and older had been looking for work 15 or more weeks as compared with one-fifth of the unemployed men 25 to 44 years of age. The proportion of women workers 65 and over who were unemployed for 15 or more weeks was only half as high as that of men in the same age group. This is the only age group in which there was a decided difference in the proportion of unemployed between men and women. Because there are so few workers over 64 in the labor force, those unemployed 15 or more weeks accounted for only 6.5 percent of the long-term unemployed.

While unemployment among young men and women is usually of relatively short duration, persons in this group accounted for 22.4 percent of the total long-term unemployed during 1956. The extent of protracted unemployment among them was about the same as among older male workers. A significant portion of these young men and women had not finished high school and undoubtedly were meeting with difficulties in obtaining work as a high school diploma was a prerequisite for an increasing proportion of jobs.²

Protracted unemployment among men 25 to 44 years of age was only about half as extensive as among youths and older men, but because of the large number of men in this age group in the work force, the long-term unemployed among them accounted for more than one-fifth of the total.

Extended unemployment among men between the ages of 25 and 44 would seem to have been closely connected with the industries in which they were employed and the training or skill required for their occupations.

Industrial Characteristics

An examination of the data on unemployment for 1956 reveals that workers from three industry divisions had a relatively high incidence of long-term unemployment. The largest proportion was in mining, followed by construction and manufacturing. (See table 2.) The industries less

¹ The detailed analyses of the age and industrial and occupational attachment of the long-term unemployed are based on unpublished data from the U. S. Bureau of the Census.

² For a discussion of the tendency for students dropping out of high school to have more difficulty in finding jobs than those who have completed high school, see Youth in the Labor Market—Work Experience of Young People Leaving School in an Area of Limited Employment Opportunities (In Occupational Outlook, U. S. Department of Labor, Bureau of Labor Statistics, October 1957, pp. 23-28).

affected were service, trade, transportation and public utilities, and public administration.

Experience of workers in the mining industry serves to illustrate the uneven distribution of unemployment which is obscured by national figures. Pockets of unemployment persist in such mining States as Pennsylvania, West Virginia, and Illinois. The heavy incidence of long-duration unemployment among miners (22 of each 1,000 in the labor force) was due mainly to the long-term decline in employment in coal mining. A great deal of coal mining is done in small towns, where alternative employment opportunities are very poor. In addition, social attachments and industrial preferences tend to deter the unemployed from seeking work in other areas.

Construction workers had the second highest incidence of long-term unemployment, despite the fact that construction employment increased significantly in 1956. The most important reason for this is that construction is highly seasonal. Employment generally reaches a peak in August, is high through November, and drops abruptly in December. It reaches a low point in February after which it rises each month to the August peak. Extended joblessness is usually at its lowest level in the fall of the year after which it rises sharply to a peak in the early spring. Thus, by spring, many of the workers laid off in the winter have been out of work for several months. The number of long-term unemployed among con-

TABLE 1. Persons unemployed 15 or more weeks, by age and sex, 1954 and 1956¹

Age and sex	1956		1954	
	Number (per 1,000 in civilian labor force)	Percent distribution	Number (per 1,000 in civilian labor force)	Percent distribution
Total, 14 years and over	8	100.0	13	100.0
Male, 14 years and over	8	66.2	13	71.8
14-24 years	11	14.1	22	16.0
25-44 years	6	22.4	11	29.1
45-64 years	8	24.1	12	22.4
65 years and over	12	5.6	13	4.2
Female, 14 years and over	8	34.0	11	28.2
14-24 years	10	8.3	14	7.6
25-44 years	8	13.9	11	12.2
45-64 years	8	11.1	10	7.6
65 years and over	6	.9	9	.7

¹ Average of data for 12 months.

NOTE: Because of rounding, sums of individual items do not necessarily equal totals. These estimates, based on a sample survey, are subject to sampling variability, which may be relatively large in the case of small estimates.

SOURCE: U. S. Bureau of the Census.

TABLE 2. Persons unemployed 15 or more weeks, by industry, 1954 and 1956¹

Major industry group and class of worker	1956		1954	
	Number (per 1,000 in experienced civilian labor force) ²	Percent distribution	Number (per 1,000 in experienced civilian labor force) ³	Percent distribution
Total	7	100.0	12	100.0
Agriculture	2	2.9	3	2.7
Nonagricultural industries ⁴	8	97.1	13	97.3
Wage and salary workers	8	94.1	14	94.4
Mining	22	3.3	58	5.6
Construction	16	12.2	23	10.7
Manufacturing	11	38.6	17	39.8
Durable goods	10	21.8	20	26.0
Nondurable goods	11	16.7	14	13.8
Transportation, communication, and other public utilities	5	5.3	15	8.8
Trade	8	17.1	11	14.4
Service industries	6	15.5	8	12.2
Private households	8	3.5	10	2.6
Other service	5	12.0	7	9.6
Public administration	3	2.0	8	2.9
Self-employed and unpaid family workers	2	3.3	3	2.7

¹ Average of data for 12 months.

² Experienced civilian labor force includes the employed and the unemployed who have ever held a full-time job.

³ Includes forestry and fisheries.

NOTE: Because of rounding, sums of individual items do not necessarily equal totals. These estimates, based on a sample survey, are subject to sampling variability, which may be relatively large in the case of small estimates.

SOURCE: U. S. Bureau of the Census.

struction workers was almost four times as high in March 1957 as in November 1956.

Manufacturing was ranked third in the proportion of workers experiencing long-duration unemployment. The significance of extended unemployment in manufacturing is, of course, augmented by its size which in 1956 represented 27 percent of all workers and 39 percent of all long-term unemployed.

The overall data on manufacturing unemployment obscure a great many divergent factors within the different manufacturing industries. Three principal factors accounting for the rather high proportion of extended unemployment among workers in manufacturing are sharp seasonal fluctuations, long-term employment declines, and occasional temporary reverses.

Industries with marked seasonal patterns, as indicated by the regularly published employment series issued by the Bureau of Labor Statistics, include apparel, lumber, and food products.⁵

⁵ For a discussion of the effects of seasonal industries on unemployment, see Monthly Report on the Characteristics of the Insured Unemployed, 1956 Annual Review, December 1956, Report USDL U-11, February 1957, pp. 4-6. See also Characteristics of the Insured Unemployed, 1956 (in Monthly Labor Review, May 1957, pp. 582-586); and also table A-2, p. 1266 of this issue.

While some of the people attached to these seasonal industries find work during the slack season or drop out of the labor force, many, although seeking other jobs, remain unemployed until the industry to which they were attached resumes its higher activity.

Over the period 1947 to 1956, when total employment in manufacturing rose by about 10 percent, there were declines in 38 of the 89 individual manufacturing industries for which such information is available. Even in industries in which employment rose over this period there were individual plants where employment dropped off. Outstanding among industries where chronic employment declines have contributed to long-term unemployment are tobacco, leather goods, and textiles. As in the case of mining, pockets of long-term unemployment accumulated in communities where these industries are concentrated. In some communities, unemployment had been increased by the movement of plants in these industries to other areas.

Temporary economic reverses as a factor contributing to long-term unemployment are illustrated by the experience of automobile workers in 1956, when a number of them experienced long periods of unemployment as a result of cutbacks in automobile production.

TABLE 3. Persons unemployed 15 or more weeks, by major occupation, 1954 and 1956¹

Major occupation group	1956		1954	
	Number (per 1,000 in experienced civilian labor force) ²	Per- cent dis- tribu- tion	Number (per 1,000 in experienced civilian labor force) ²	Per- cent dis- tribu- tion
Total.....	7	100.0	11	100.0
Farm workers.....				
Nonfarm workers.....	2	2.4	3	2.6
Blue-collar workers.....	8	97.6	12	97.4
Laborers.....	12	64.6	14	69.1
Operatives.....	19	15.4	27	14.9
Craftsmen.....	13	36.6	22	39.9
Service workers.....	7	12.6	12	14.3
Private household workers.....	10	15.7	11	10.7
Other service workers.....	6	2.8	8	2.1
White-collar workers.....	11	12.8	12	8.7
Sales workers.....	3	17.3	5	17.5
Clerical workers.....	5	4.1	6	3.4
Managers, officials, and prop- rietors.....	5	8.3	8	9.2
Professional and technical workers.....	2	3.3	3	2.3
	1	1.6	3	2.5

¹ Average of data for January, April, July, and October.

² Experienced civilian labor force includes the employed and the unemployed who have ever held a full-time job.

NOTE: Because of rounding, sums of individual items do not necessarily equal totals. These estimates, based on a sample survey, are subject to sampling variability, which may be relatively large in the case of small estimates.

SOURCE: U. S. Bureau of the Census.

TABLE 4. The relationship of long-term unemployment and the civilian labor force, 1947-56¹

Year	Civilian labor force (thou- sands)	Unemployed			
		Total		15 or more weeks	
		Num- ber (thou- sands)	Percent of labor force	Num- ber (thou- sands)	Percent of labor force
1947.....	60,168	2,142	3.6	398	0.7
1948.....	61,442	2,064	3.4	309	1.1
1949.....	62,105	3,395	5.5	683	1.1
1950.....	63,099	3,142	5.0	782	1.2
1951.....	62,884	1,879	3.0	303	.5
1952.....	62,966	1,673	2.7	232	.4
1953.....	63,815	1,602	2.5	211	.3
1954.....	64,468	3,230	5.0	812	1.3
1955.....	65,847	2,654	4.0	702	1.1
1956.....	67,530	2,551	3.8	532	.8

¹ Average of data for 12 months.

SOURCE: U. S. Bureau of the Census.

Among the major industry divisions with the lowest proportions of long-term unemployed, trade and domestic service showed higher proportions than transportation and public utilities, nondomestic service, and public administration. The three last mentioned industry groups had very little unemployment, either of short or long duration. This was particularly true for public administration which, in 1956, had an unemployment rate of only 1.6 percent. Domestic service workers were prone to have more frequent spells of unemployment than workers in most industries but these spells were usually of short duration.

Occupations of the Long-Term Unemployed

Workers with little skill are the most subject to layoff and tend to remain unemployed longer than other workers. During 1956, extended unemployment was most common among the so-called "blue collar" workers—laborers, operatives, and craftsmen—concentrated in manufacturing, construction, and mining. Domestic and other service workers had almost as high an incidence of extended unemployment as the blue-collar workers, while "white collar" workers, i. e., administrative, sales, clerical, and professional and technical, had the lowest degree of long-term unemployment. Out of 1,000 workers in each group of occupations, 12 in the blue-collar, 10 in the service, and only 3 in the white-collar group were long-term unemployed. (See table 3.)

In the blue-collar group, laborers, the least skilled of workers, who on the average had com-

pleted only 8 years of school and had received the least technical training, experienced by far the highest incidence of protracted unemployment during 1956. Operatives and semiskilled workers, were second to laborers in the proportion of long-duration unemployed. Skilled workers had the lowest incidence of extended unemployment in this group. Because of the relative scarcity of their skills, employers were less likely to lay off skilled workers when work was slack. Moreover, if laid off, it was easier for them to find new jobs.

None of the white-collar groups had as great an incidence of long-term unemployment as the skilled workers. By far the greatest proportion of white-collar workers were employed in industries which we have noted as being least affected by long-term unemployment, i. e., transportation, trade, service, and public administration. But in this group, too, lack of skill and training was related to the duration of joblessness. Clerical and sales workers were more subject to long periods of unemployment than professional and technical workers. Managers, officials, and proprietors, with the same amount of formal training as sales and clerical workers, were less subject to long-term unemployment, because they included a large proportion of self-employed persons.

Service workers employed in private households experienced only about the same degree of long-term unemployment as did sales and clerical workers in the white-collar group. The low incidence of extended unemployment among household workers is related to the high demand for domestic service resulting partly from the increasing employment of married women outside the home in recent years. Moreover, domestics often work only a few days or even a few hours in a week, which results in their being counted as employed. Such employment may frequently interrupt what might have been a long spell of unemployment.

Patterns of Long-Term Unemployment

As pointed out, the number of long-term unemployed varies with changes in the level of total unemployment. The number of people out of

work for 15 or more weeks increases steadily from a low point which most often occurs in November to a high in April. Much of the unemployment during this period is caused by layoffs in seasonal industries. The seasonal low and peak months for total unemployment are usually October and February. During a recession, the number of long-term unemployed rises more sharply than the total number of unemployed. (See table 4.) During the 1954 downturn, the total number of persons out of work averaged 3.2 million, of whom 812,000, or 25 percent, were long-term unemployed compared with nearly 21 percent of the average number unemployed in 1956.

While the people who were hit by long-term unemployment in 1954 had essentially the same characteristics as those in 1956, there were significant differences. Younger men and men in the central ages had considerably more long-term unemployment in 1954 than in 1956. Males over 65 were only slightly more subject to extended unemployment during the earlier year than in the latter.

Workers in mining and durable manufacturing had much more protracted unemployment in 1954 than in 1956. This was also true of workers in public administration, but the number involved in this group was negligible. The most striking difference was in transportation, communications, and other public utilities which had about three times as many long-term unemployed in 1954 as in 1956. Much of this was due to declines in the railroad industry in 1954.

Craftsmen, operatives, laborers, and clerical workers each had a markedly higher incidence of extended unemployment in 1954 than in 1956. Although professional workers had a considerably higher percentage of extended unemployment in 1954, the percentage was nevertheless very low. In 1954, the number of long-term unemployed clerical workers was much greater than in 1956 reflecting the effect of employment declines in durable manufacturing, transportation, and government.

—JACOB SCHIFFMAN

Division of Manpower and Employment Statistics

Earnings of Communications Workers in October 1956

EARNINGS of the 720,000 employees of the Nation's communications carriers averaged \$2.03 an hour in October 1956, 9 cents above October 1955.¹ Average hourly earnings in the four main carrier groups were as follows: class A telephone carriers (chiefly Bell system), \$2.04; wire-telegraph operations (excluding messengers, officials, managerial assistants, and ocean-cable employees) of Western Union Telegraph Co., \$2.01; and radiotelegraph carriers and ocean-cable carriers (both excluding officials and assistants), \$2.27 and \$2.20, respectively. Increases since October 1955 ranged from 8 cents for radiotelegraph carriers to 15 cents for wire-telegraph operations of Western Union Telegraph Co.

Women employed as experienced switchboard operators comprised about a fourth of the 678,000 telephone workers covered by the study and averaged \$1.55 an hour in October 1956. Non-supervisory clerical employees (123,000 women and 10,000 men), almost a fifth of the total work force in the telephone industry, averaged \$1.66 an hour in October 1956. Averages for numerically important job categories primarily staffed by men were: \$1.84 for linemen, \$2.28 for PBX

¹ Based on annual reports filed with the Federal Communications Commission by carriers engaged in interstate or foreign communications by means of their own facilities or through connections with the facilities of another carrier under direct or indirect common control. Information included in this study relates to all carriers except radiotelegraph and ocean-cable carriers with annual operating revenues below \$50,000 and telephone carriers with annual operating revenues below \$250,000. For further details, including data on additional occupations, see BLS Report 121. It is estimated that this study covers more than nine-tenths of the workers in the communications industries. For a summary of the Bureau's study of communications workers' earnings in October 1955, see Monthly Labor Review, October 1956, pp. 1184-1186. The earnings data contained in this summary were computed by dividing scheduled weekly compensation by scheduled weekly hours.

TABLE 1. Employees of class A telephone carriers:¹ Average hourly earnings² of employees in selected occupations by regions,³ October 1956

Occupation	United States ⁴		New England		Middle Atlantic		Great Lakes		Chesapeake		
	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	Number of workers	Average hourly earnings	
All employees, except officials and assistants.....	677,778	\$2.04	52,693	\$2.00	153,234	\$2.14	124,171	\$2.12	34,171	\$2.00	
Non-supervisory employees ⁵	615,242	1.87	48,261	1.84	139,242	1.95	112,256	1.93	31,177	1.83	
Cable splicers.....	14,618	2.36	1,119	2.42	3,065	2.52	2,455	2.42	869	2.32	
Cable splicers' helpers.....	7,263	1.43	672	1.40	2,237	1.36	1,457	1.47	459	1.41	
Central office repairmen.....	34,517	2.31	2,048	2.34	8,193	2.45	6,330	2.31	1,672	2.28	
Clerical.....	132,948	1.66	9,349	1.59	33,123	1.69	23,768	1.71	5,888	1.66	
Exchange repairmen.....	12,719	2.57	517	2.73	3,597	2.64	3,765	2.61	297	2.64	
Experienced switchboard operators.....	158,939	1.55	14,984	1.59	34,480	1.67	28,537	1.63	8,514	1.49	
Linemen.....	19,527	1.84	1,255	1.64	3,967	1.87	3,167	1.87	1,071	1.59	
Mechanics, building and motor-vehicle service.....	2,903	2.28	191	2.29	836	2.32	614	2.46	166	2.07	
PBX and station installers.....	26,097	2.28	644	2.34	8,707	2.42	6,670	2.20	815	2.10	
Test-board men and repeatermen.....	13,721	2.45	600	2.60	1,603	2.80	1,852	2.58	413	2.63	
<hr/>											
All employees, except officials and assistants.....		Southeastern		North Central		South Central		Mountain		Pacific	
		72,698	\$1.77	23,810	\$1.95	61,825	\$1.88	27,360	\$1.83	92,306	\$2.14
<hr/>											
Non-supervisory employees ⁵	66,849	1.64	21,461	1.77	58,060	1.78	24,987	1.68	82,309	1.96	
Cable splicers.....	2,062	2.25	601	2.09	1,136	2.46	550	2.16	2,381	2.28	
Cable splicers' helpers.....	838	1.45	85	1.49	377	1.64	220	1.59	752	1.52	
Central office repairmen.....	3,414	2.16	764	2.41	2,994	2.40	1,060	2.14	5,042	2.25	
Clerical.....	12,353	1.55	3,766	1.58	10,490	1.57	5,415	1.46	19,221	1.76	
Exchange repairmen.....	169	1.87	-	-	1,523	2.53	448	2.35	2,346	2.50	
Experienced switchboard operators.....	18,236	1.31	6,020	1.43	18,650	1.43	6,100	1.43	16,967	1.68	
Linemen.....	2,217	1.68	1,015	1.75	2,365	2.14	1,213	1.70	2,731	1.91	
Mechanics, building and motor-vehicle service.....	435	1.94	50	2.28	108	2.37	37	1.93	425	2.40	
PBX and station installers.....	98	1.65	-	-	3,011	2.42	1,152	2.15	5,115	2.16	
Test-board men and repeatermen.....	1,091	2.45	355	2.52	1,234	2.49	416	2.37	2,483	2.40	

¹ Covers telephone carriers with annual operating revenues exceeding \$250,000.

² Average hourly earnings were computed by dividing total scheduled weekly compensation by total scheduled weekly hours.

³ The regions used in this study include: New England—Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont; Middle Atlantic—Delaware, New Jersey, New York, and Pennsylvania; Great Lakes—Illinois, Indiana, Michigan, Ohio, and Wisconsin; Chesapeake—District of Columbia, Maryland, Virginia, and West Virginia; Southeastern—Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North

Carolina, South Carolina, and Tennessee; North Central—Iowa, Minnesota, Nebraska, North Dakota, and South Dakota; South Central—Arkansas, Kansas, Missouri, Oklahoma, and Texas (except El Paso County); Mountain—Arizona, Colorado, Idaho (south of Salmon River), Montana, Nevada, New Mexico, Texas (El Paso County), Utah, and Wyoming; Pacific—California, Idaho (north of Salmon River), Oregon, and Washington.

⁴ Figures include long-line employees and class A telephone carrier employees in the territories.

⁵ Excludes officials and managerial assistants, professional and semiprofessional employees, and nonclerical business office and sales employees.

TABLE 2. *Western Union Telegraph Co.: Percentage distribution of wire-telegraph employees by average hourly earnings,¹ selected occupations, October 1956*

Average hourly earnings ¹ (in cents)	All em- ployees except messengers ²	Experienced telegraph operators (except Morse)		Laborers	Linemen and cable- men	Mechan- ics, building service	Morse operators	Subscrib- ers' equip- ment main- tainers	Tele- phone operators	Messens- ers, foot and bicycle	Messens- ers, motor
		Commer- cial de- partment	Traffic de- partment								
100 and under 110										100.0	
110 and under 120											
120 and under 130	0.2										
130 and under 140	5.4	15.3	1.7	7.3							
140 and under 150	6.8	18.6	6.6	8.2							
150 and under 170	15.0	40.3	7.2	11.8			0.3	0.2		8.2	
170 and under 190	18.5	16.5	29.2	22.7	10.8	5.6	8.3	2.7		10.8	
190 and under 210	23.4	9.2	55.3	8.2	23.6	20.4	70.3	23.3		17.9	
210 and under 230	10.4	.1	(0)	34.1	32.2	39.4	20.1	23.6		29.6	
230 and under 250	8.6			7.3	22.1	24.5	.1	50.2		33.5	
250 and under 270	3.3			.5	10.2						
270 and under 290	1.7				.5						
290 and under 310	1.4				.7	1.4					
310 and over	5.2						1.4				
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of workers	30,417	3,537	2,833	220	582	216	686	1,061	2,239	5,569	1,454
Average hourly earnings ¹	\$2.01	\$1.59	\$1.83	\$1.89	\$2.20	\$2.16	\$2.00	\$2.22	\$1.73	\$1.02	\$1.45

¹ Excludes premium pay for overtime and for work on weekends, holidays, and late shifts.

² Excludes officials and assistants and ocean-cable employees. Data for the latter are incorporated in table 4.

³ Less than 0.05 percent.

NOTE: Because of rounding, distributions may not always total 100.

and station installers, \$2.31 for central office repairmen, \$2.36 for cable splicers, and \$2.57 for exchange repairmen.

Average earnings of telephone workers ranged from a low of \$1.77 in the Southeast to a high of \$2.14 in the Middle Atlantic and Pacific regions. Workers averaged \$2.12 in the Great Lakes region; \$2 in New England and the Chesapeake regions; and \$1.95 or less in the North Central, South Central, and Mountain regions (table 1).

Earnings of employees in Bell System companies were substantially higher than those of similar workers in other telephone companies.² For example, experienced switchboard operators of the Bell System averaged \$1.57 an hour, compared with \$1.20 for employees of non-Bell companies.

² The 23 reporting units of the Bell System employed 97 percent of the telephone workers covered by the study. The average employment of these units, which typically service an entire State or number of States, exceeds 25,000. Other telephone companies, although widely distributed geographically, are more local in nature and generally employ fewer than 500 workers.

TABLE 3. *Principal radiotelegraph carriers:¹ Percentage distribution of employees by average hourly earnings,² selected occupations, October 1956*

Average hourly earnings ² (in cents)	All employees except officials and assistants ³	Marine coastal station operators	Mechanics and maintenance technicians	Messengers, foot and bicycle	Radio operat- ing technicians	Radio operators	Teletype- multiplex operators
100 and under 110	12.5			91.1			
110 and under 120	1.2			7.7			
120 and under 130	1.1			1.2			
130 and under 140	2.6					0.1	
140 and under 150	2.1					.7	
150 and under 170	8.2	1.6				6.0	1.3
170 and under 190	7.9	7.1	4.3		0.7	12.2	11.6
190 and under 210	6.1	6.3	8.6		4.1	8.8	21.0
210 and under 230	10.0	7.9	5.9		5.6	14.1	10.9
230 and under 250	10.9	22.8	17.3		7.8	20.0	14.7
250 and under 270	13.9	29.1	29.7		22.8	31.4	29.0
270 and under 290	8.6	7.1	33.5		53.0	3.8	11.4
290 and under 310	3.7	7.9	.5		4.5	1.1	
310 and over	11.3	10.2			1.5	1.8	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of workers	3,802	127	185	519	268	252	448
Average hourly earnings ²	\$2.27	\$2.55	\$2.23	\$1.04	\$2.74	\$2.63	\$2.10

¹ Covers radiotelegraph carriers with annual operating revenue exceeding \$50,000.

² See footnote 2, table 1.

³ Excludes employees working for radiotelegraph carriers outside the continental United States.

NOTE: Because of rounding, distributions may not always total 100.

TABLE 4. Principal ocean-cable carriers:¹ Percentage distribution of employees by average hourly earnings,² selected occupations, October 1956

Average hourly earnings ³ (in cents)	All employees except officials and assistants ⁴	Cable operators	Messen- gers, foot and bicycle	Teletype- multiplex operators
100 and under 110	11.6		94.2	
110 and under 120	.4		2.9	
120 and under 130	.1			
130 and under 140	1.6		1.2	
140 and under 150	3.0			
150 and under 170	8.5		.6	5.5
170 and under 190	10.1		1.2	40.2
190 and under 210	11.1			27.6
210 and under 230	14.1			18.9
230 and under 250	9.4			7.9
250 and under 270	12.7	100.0		
270 and under 290	5.8			
290 and under 310	3.0			
310 and over	8.6			
Total	100.0	100.0	100.0	100.0
Number of workers	1,383	107	171	127
Average hourly earnings ⁴	\$2.20	\$2.57	\$1.02	\$1.95

¹ Covers ocean-cable carriers with annual operating revenues exceeding \$50,000; includes ocean-cable employees of Western Union Telegraph Co.

² See footnote 2, table 1.

³ Excludes employees working for the ocean-cable carriers outside the continental United States.

NOTE: Because of rounding, distributions may not always total 100.

Nonsupervisory clerical employees of Bell System companies averaged \$1.67 an hour, compared with \$1.39 in non-Bell companies. Bell linemen averaged \$1.85 an hour compared with \$1.68 for comparable workers in the smaller companies.

Total employment in class A telephone carriers increased approximately 35,000 over October 1955 and 68,000 over October 1954. Over the 2-year period, employment in construction, installation, and maintenance work increased by 30,300 workers, or 21 percent. Clerical employment increased 19,400, or 16 percent. By way of

contrast, the number of telephone operators increased by only 2,300, or 1 percent.

Western Union Telegraph Co.'s 30,400 non-messenger employees averaged \$2.01 an hour in October 1956. Straight-time rates of pay for job categories in which women predominated included \$1.59 for experienced telegraph operators (except Morse operators) in the commercial department and \$1.83 for those in the traffic department; \$1.73 for telephone operators; and \$1.85 for nonsupervisory clerical employees. Averages for numerically important jobs in which men predominated were \$2 for Morse operators, \$2.20 for linemen and cablemen, and \$2.22 for subscribers' equipment maintainers (table 2).

The 7,023 messengers comprised approximately a fifth of the wire-telegraph employees and as a group averaged \$1.13 an hour in October 1956. Nearly two-fifths were employed on a part-time basis, averaging \$1.02 an hour compared with \$1.16 for full-time employees. Foot and bicycle messengers outnumbered motor messengers by almost 4 to 1; averages for these categories were \$1.02 and \$1.45, respectively.

Radiotelegraph and ocean-cable carriers together accounted for less than 1 percent (5,185) of the 720,000 employees covered by the study. Average hourly earnings for all employees except officials and assistants in these companies were \$2.27 for radiotelegraph carriers and \$2.20 for ocean-cable carriers (tables 3 and 4).

—THOMAS C. MOBLEY
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Technical Note

Mortgage Interest Rates in the Consumer Price Index, 1952-57

THE COST of mortgage interest has become increasingly significant to consumers in recent years as the result of a general shift to homeownership. An estimated 61 percent of all occupied dwellings are occupied by their owners in 1957 as compared to 53 percent in 1950.¹ This shift was paralleled by an average rate of new construction of single family dwellings of slightly more than 1 million annually since 1950.² The present low vacancy rate of 0.5 percent of homes available for sale indicates that the demand for homeownership is continuing strong.³ The sale of new homes at rising prices has increased the average mortgage balance from \$3,700 on 9 million homes in 1949 to an average balance of \$6,100 on 16 million homes in 1957.⁴

The implication of this growth of homeownership and mortgage debt for consumer prices was recognized in the 1953 revision of the Consumer Price Index of the U. S. Department of Labor's Bureau of Labor Statistics. In that revision, mortgage interest rates, as a segment of homeowner costs, became one of the separate components of the CPI's new housing index series. Their significance is pointed up by their relative importance of 1.7 percent of all CPI items and 5 percent of their major group's total, i. e., housing, as of December 1956.

Types of Mortgage Interest Rates

Of the total mortgage loans outstanding on nonfarm 1- to 4-family properties in early 1957,⁵ about 45 percent by dollar volume are underwritten by the Federal Housing Administration or by the Veterans Administration; the remainder are the conventional loans, i. e., not subject to any Government guarantee.⁶ FHA or VA mortgage interest rates are less volatile than rates of

conventional loans because they are set by law and are uniform throughout the United States.

FHA-insured home mortgage rates (including an insurance premium of 0.5 percent, as paid by the mortgagor) were 4.75 percent up to May 1, 1953, and have risen in three steps since then, as follows:

	Interest rate	Insurance premium (Percent)	Total rate
May 2, 1953	4.5	0.5	5.0
December 4, 1956	5.0	.5	5.5
August 5, 1957	5.25	.5	5.75

VA-guaranteed mortgage interest rates have remained even more stable and have risen only once between 1944 and 1957—from 4 to 4½ percent in May 1953. In the past few months, builders have reported that VA loans are in short supply in most areas because their low interest return makes them unattractive to lenders.

The FHA and the VA report to the Bureau on changes in interest rates of Government-insured mortgages for computing the mortgage component in the CPI. The FHA mortgage rates include the mortgage insurance premium of 0.5 percent paid by the mortgagor. Conventional mortgage interest rates, which vary by cities and by regions and change readily over time, are obtained by the Bureau from a sample of lenders in the 46 cities represented in the Consumer Price Index. The Bureau collects these data twice yearly on both new and existing homes from a stratified sample of the major types of mortgage lending institutions in each city.⁷ Both conventional and Government-insured mortgages are represented in the CPI housing series according to the importance of each type in the base period.⁸

¹ Computed from Housing and Construction Reports, Housing Vacancies, Series H-111, No. 8; and Census of Housing: 1950, Vol. I, Pt. I, table L.

² See table F-6, p. 1312 of this issue.

³ Housing and Construction Reports, op. cit., p. 3.

⁴ 1957 Survey of Consumer Finances, Housing and Durable Goods (in Federal Reserve Bulletin, Board of Governors of the Federal Reserve System, June 1957, p. 631); in 1953, the average mortgage debt was \$4,500 on 11 million homes.

⁵ For an article on the supply and use of mortgage funds, see p. 1211 of this issue.

⁶ Federal Reserve Bulletin, June 1957, p. 689.

⁷ See Monthly Labor Review, February and April 1956, pp. 189 and 442, respectively, for description of the concepts and methodology used in pricing items included in housing costs in the Consumer Price Index. Collection of data was formerly made once yearly but was changed in July 1956 because of the increasingly rapid change in interest rate levels.

⁸ The average interest rates reported for each period for FHA, VA, and conventional mortgages are combined according to the total interest contracted for with each type of mortgage.

TABLE 1. Conventional first mortgage interest rates for 20 large cities arrayed by level of interest rate, December 1952 and January 1957

City	December 1952 rate	City	January 1957 rate
Scranton	6.0	Los Angeles	6.1
Houston	5.7	San Francisco	6.1
Los Angeles	5.4	Portland (Oreg.)	6.0
Atlanta	5.2	Houston	5.9
San Francisco	5.2	Cincinnati	5.9
Chicago	5.1	Seranton	5.9
Pittsburgh	5.1	Atlanta	5.8
Portland (Oreg.)	5.1	Seattle	5.7
Detroit	5.0	Cleveland	5.7
Kansas City (Mo.)	5.0	Detroit	5.7
Philadelphia	5.0	Chicago	5.6
Minneapolis	4.9	Minneapolis	5.6
Seattle	4.9	Pittsburgh	5.6
Washington, C.	4.8	Philadelphia	5.6
Cleveland	4.8	Kansas City (Mo.)	5.6
Cincinnati	4.8	New York	5.5
Baltimore	4.7	Baltimore	5.5
St. Louis	4.6	St. Louis	5.4
New York	4.6	Washington, D. C.	5.4
Boston	4.4	Boston	5.1

Changes in Mortgage Interest Rates

Average conventional first mortgage interest rates for new mortgages for 20 large cities⁹ represented in the Consumer Price Index are arrayed for December 1952 and for January 1957 in table 1. The extremes of the city averages show a difference of 1.6 percentage points in 1952 as compared to a difference of only 1 percentage point in 1957. The greater uniformity in 1957 results partly from the decrease in the importance and competitive effect of Government-supported loans, particularly VA loans, in many of the cities. A more consistent distribution of rates by region is apparent in 1957. All 6 of the western and southern cities represented are among the 8 cities with highest rates while 6 of the 8 cities with lowest rates are in the east. Cincinnati reported the greatest change over the period, moving from fifth from the bottom with an average of 4.8 percent in 1952 to fifth from the top with 5.9 percent in 1957. In Cincinnati, overall rate change has been largely determined by the free market conventional mortgage interest rates, because both FHA and VA loans have consistently represented a smaller than average portion of the total.

Table 2 lists indexes (December 1952=100) of first mortgage interest rates including both conventional and Government-underwritten loans for January 1957 and earlier dates. The rates for the

United States have increased nearly 14 percent on the average since December 1952. Over 60 percent of this rise has occurred in the 18 months from July 1955 and about 45 percent in the 6 months from July 1956. Increases by city since December 1952 range from a low of 7.6 percent for Houston to a high of 23.1 percent for Cincinnati. Five of the 20 cities show indexes of at least 116. There is little regional variation, however, in the magnitude of change in interest rates between 1952 and 1957. For example, when all 46 CPI cities are distributed by regions, only the South shows somewhat less than the average percentage increase between December 1952 and January 1957:

	Percent increase
United States (46 cities)	14
Northeastern cities	14
Southern cities	12
North Central cities	14
Western cities	14

There is a somewhat more positive relationship between city size and interest rate change. Covering the period December 1952 to January 1957, the greatest percentage increase occurred in medium cities of 240,000 to 1 million population, as follows:

	Percent increase
United States (46 cities)	14
Urbanized areas of:	
1,000,000 population and over	13
240,000 to 1,000,000 population	15
30,500 to 240,000 population	14
Cities under 30,500 population	13

TABLE 2. Indexes of first mortgage interest rates for the United States and 20 large cities, selected dates

[December 1952=100]

City	July 1954	July 1955	July 1956	January 1957
United States	105.0	105.3	107.5	113.7
Atlanta	106.6	107.0	108.9	113.1
Baltimore	107.2	108.8	110.2	113.9
Boston	105.8	105.8	109.7	115.2
Chicago	105.4	104.1	107.9	112.3
Cincinnati	107.0	107.8	116.2	123.1
Cleveland	105.7	105.0	107.5	115.7
Detroit	105.3	105.2	108.1	115.8
Houston	102.7	103.0	103.3	107.6
Kansas City (Mo.)	105.0	106.7	107.6	115.4
Los Angeles	101.3	100.9	103.9	109.8
Minneapolis	107.5	107.3	108.9	114.5
New York	106.7	107.4	109.1	116.4
Philadelphia	106.3	104.1	105.1	113.4
Pittsburgh	105.7	104.4	106.0	110.4
Portland (Oreg.)	106.8	106.7	109.4	116.5
St. Louis	105.2	105.2	106.0	115.7
San Francisco	103.2	102.9	106.0	116.3
Seranton	106.4	106.4	106.4	110.1
Seattle	108.1	107.7	109.1	116.1
Washington, D. C.	103.0	103.9	106.5	112.9

* Interest information is not included in the tables for the 26 smaller CPI cities individually. These data are more significant when combined with other cities to provide United States[†] or regional averages.

It is apparent from table 2, however, that mortgage interest increases have varied widely among cities. The CPI cities when grouped according to either unusually high or low increases in mortgage interest rates are scattered and of varying size. Cities reporting increases of at least 16 percent are: Cincinnati, New York, Seattle, Portland (Oreg.), and San Francisco. The cities showing increases of 10 percent or less are: Pittsburgh, Scranton, Houston, and Los Angeles.

Nonmeasurable Interest Costs

Occasionally, the Bureau of Labor Statistics is questioned about the feasibility of measuring certain other cost items involved in borrowing money for the purchase of a home. The discounts which have been paid to obtain FHA and VA mortgages represent a relatively new and significant mortgage cost item. When mortgage money is in short supply at the interest rate specified for FHA and VA mortgages (as is the case at the present time), a premium of several percentage points is paid to lenders as an inducement to make the loan. According to congressional hearings,¹⁰ discounts on FHA mortgages rose to about 5 or 6 points in many areas before the increase in the interest rate to 5 percent (excluding the 0.5 percent insurance premium) in December 1956. Following this increase, discounts remained at about 2 to 4 points until the interest rate increased to 5½ percent in August 1957. VA mortgages, because of their 4½ percent interest rate and low down payment have entailed high discounts since 1955. Discounts of as high as 7 or 8 points were not unusual.

In some instances, the premiums for Government-supported mortgages are paid by the lender

and others by the borrower. The purchase price of a home being financed by a new FHA-insured mortgage may be increased because of the discount paid to obtain the loan. As such, the discount is not a recurring interest cost but is more appropriately considered as part of the initial cost of home purchase; to the extent that housing purchase prices reflect this factor, it is included in the CPI. The Federal Housing Administration and the Veterans Administration, as directed by 1957 housing legislation, have recently issued regulations to limit discounts. The maximum number of points range from 1 to 2½ for new FHA-insured home mortgages and from 2½ to 5½ for VA-guaranteed home loans depending on location and equity of the mortgagor.¹¹

Another such cost item derives from the greater incidence of junior mortgages in recent years. It is not uncommon for purchasers to assume an existing low-interest first mortgage when purchasing a previously occupied home. Often, in such cases, buyers find it necessary to arrange a second mortgage to make even a reasonably low downpayment and it is not uncommon for sellers to "take back" the second mortgage as part of the purchase price. The interest rates are frequently 6 percent on these junior loans. The fact that their value is generally under par by a considerable margin is taken into account by the seller in setting the purchase price of the home. Consequently, the discount on junior mortgages is appropriately considered as part of the capital cost rather than as recurring interest cost.

—GEORGE G. JOHNSON

Division of Prices and Cost of Living

¹⁰ Utilization of Housing Loans, House Committee Print No. 3, 85th Cong., (1st sess.) January 15, 1957, and Status of VA Housing, Subcommittee on Veterans Affairs, House of Representatives, 85th Cong., July 18, 1957.

¹¹ See Federal Register, August 7, 1957, pp. 6290 and 6305.

" . . . The Government should, therefore, inaugurate a plan to build model homes and establish a system of credits whereby the workers may borrow money at a low rate of interest and under favorable terms to build their own homes. Credit should also be extended to voluntary nonprofit-making housing and joint-tenancy associations. States and municipalities should be freed from the restrictions preventing their undertaking proper housing projects and should be permitted to engage in other necessary enterprises relating thereto. . . ."

—Reconstruction Program of the American Federation of Labor (in the Monthly Labor Review, March 1919, p. 686).

Significant Decisions in Labor Cases*

Labor Relations

Employer Interference in Collective Bargaining. The National Labor Relations Board held¹ that an employer who entered into a collective bargaining agreement with a local union without the knowledge or approval of the international which was the certified bargaining agent of the employees violated the statutory duty to bargain with the representatives of his employees.

After the international union was recognized as the bargaining representative, it set up a local for its membership in the employer's plant. Successive collective bargaining agreements, the last of which remained in effect until February 4, 1956, were entered into by the employer and the international.

Negotiations began on December 19, 1955, between the employer and the international for a collective bargaining agreement for the year February 4, 1956, to February 4, 1957. Dissatisfied with the conduct of the negotiations by the international union's representative, the local entered into a contract with the employer on December 23, 1956. The international was advised of the signing of the agreement by the local in January 1956, and shortly thereafter filed charges with the Board.

The Board held that the employer was under a duty to bargain with the international as the exclusive bargaining agent of its employees and that, by entering into an agreement with the local without the express approval of the international, the employer committed an unfair labor practice in violation of Section 8 (a) (5) and (1) of the National Labor Relations Act. The Board stated: "The [employer's] conduct in concluding an agreement with the Local in disregard of the statutory bargaining representative . . . was a violation of the essential principle of collective

bargaining . . . and calls for the usual remedy in such cases, namely that the [employer] be required to cease and desist from such unlawful practices and, affirmatively, to bargain with the union."

Welfare Fund Status in Bankruptcies, No. 1. A Federal district court held² that the claim of a union welfare fund for payments due it under a collective bargaining agreement is not entitled to priority as a claim for wages pursuant to Section 64 (a) (2) of the Bankruptcy Act.

By the terms of a collective bargaining agreement, the employer in this case was required to contribute 4½ percent of the payroll of the employees in the bargaining unit to the trustees of a union welfare fund. During the contract term, the employer was adjudged a bankrupt and the trustees filed a claim seeking the status of a priority wage claimant for amounts which the employer failed to pay for the 3-month period preceding the filing of the bankruptcy petition.

The referee disallowed the claims for wage priority made by the trustees. On petition for review, the district court affirmed his action stating: "The nature of the benefits which accrued to the employees from the funds discloses that the employer's contributions do not constitute 'wages' that are 'earned' by and 'due to' the employees. The employer's contribution is due to independent entities, the Trustees of the respective funds; the obligation of such payment is not a debt owed the individual employee. . . . Conceded, the term 'wages' has been expanded to comprise severance pay, vacation pay, back pay awards under the National Labor Relations Act, and portal-to-portal pay. . . . But in all of these cases, the wages were due the worker directly for services rendered and were not due to another pursuant to a contract."

*Prepared in the U. S. Department of Labor, Office of the Solicitor. The cases covered in this article represent a selection of the significant decisions believed to be of special interest. No attempt has been made to reflect all recent judicial and administrative developments in the field of labor law or to indicate the effect of particular decisions in jurisdictions in which contrary results may be reached based upon local statutory provisions, the existence of local precedents, or a different approach by the courts, to the issue presented.

¹John L. Clemmey Co., Inc. and United Steelworkers of America, 118 NLRB No. 77 (July 11, 1957).

²In re Victory Apparel Manufacturing Corp. (U.S.D.C., N. J., July 17, 1957).

Welfare Fund Status in Bankruptcies, No. 2. A Federal district court held³ that the claim of a union welfare fund for payments due it under a collective bargaining agreement is entitled to priority as a claim for wages pursuant to Section 64 (a) (2) of the Bankruptcy Act.

A collective bargaining agreement which provided for contributions to welfare trust funds of the unions was entered into between an association acting for the employer and two unions. The agreement provided that the employer was required to pay \$8 per month into a trust fund established by each union for every employee within the collective bargaining unit represented by the union.

Subsequently, the employer was adjudged a bankrupt and the trustees of both union welfare funds filed claims seeking the status of a priority wage claimant for amounts which the employer owed to the funds for the 3-month period preceding the filing of the bankruptcy petition. The referee denied the priority claims. On petition for review, the district court reversed, holding that unpaid contributions of an employer to a welfare fund constitute wage claims entitled to priority.

The court called attention to conflicting opinions on the subject of the priority of welfare funds in bankruptcy cases and said that it relied on an earlier case,⁴ which held that the concept of wages had expanded over the years and that an employer's contribution to a welfare fund under a collective bargaining agreement "is but another method of computing and paying compensation for services rendered."

Use of Union Dues. The Supreme Court of Georgia held⁵ that nonunion railroad workers may maintain an action to restrain the enforcement of a union-shop contract, executed pursuant to the Federal Railway Labor Act, which, it was alleged, would compel them to pay union dues to support political doctrines they oppose.

In accordance with a clause in the collective bargaining agreement entered into by the union and the railroad in this case, a group of employees who were not members of the union were notified that unless they became members within 60 days from the effective date of the contract their employment would be terminated. The employees brought an action to enjoin enforcement of the

union-shop agreement alleging that the initiation fees, periodic dues, and assessments which they would be required to pay would be used in substantial part for purposes not germane to collective bargaining but to support ideological and political doctrines and candidates which they were not willing to support, thus violating rights guaranteed by the first, fifth, and ninth amendments to the Constitution of the United States. The trial court dismissed the action as failing to state a claim upon which relief could be granted.

The Supreme Court of Georgia reversed, holding that, although the United States Supreme Court, in *Railway Employes' Department v. Hanson*,⁶ "upheld the validity of a closed-shop contract . . . that opinion clearly indicates that that Court would not approve a requirement that one join the union if his contributions thereto were used as this petition alleges. It is there said, 'Judgment is reserved [italics ours] as to the validity or enforceability of a union- or closed-shop agreement if other conditions of union membership be imposed or if the exaction of dues, initiation fees or assessments is used as a cover for enforcing ideological conformity or other action in contravention of the first or the fifth amendments.'

"We must render judgment now upon this precise question. We do not believe one can constitutionally be compelled to contribute money to support ideas, politics, and candidates which he opposes. We believe his right to immunity from such exactions is superior to any claim the union can make upon him.

"Accordingly, the trial court erred in dismissing the amended petition which alleges that such uses will be made of dues and other money which as a member of the union petitioners would be required to contribute to the union."

Inspection of Union Records. The California Supreme Court held⁷ that a member of a union has a right to inspect its financial records and need not exhaust his remedies within the union before obtaining judicial relief when his request for per-

³ *In re Embassy Restaurant, Inc.* (U.S.D.C., E. Pa., June 28, 1957).

⁴ *In re Otto d. b. a. Bud Otto's Steak House* (U.S.D.C., S. Calif., Nov. 21, 1956).

⁵ *Looper v. Georgia Southern & Florida Railway Co.* (Ga. Sup. Ct., June 10, 1957).

⁶ 351 U. S. 225 (1956).

⁷ *Mooney v. Bartenders Union, Local No. 284* (Calif. Sup. Ct., Aug. 2, 1957).

mission to inspect the financial records is denied by the union officers.

The member had requested permission to examine all financial records of the union for the period from January 5, 1955, to June 1, 1957. The demand was refused by the officer who had control of the records and his action was upheld by the Executive Board of the union. Before exhausting his remedies within the union, the member petitioned a trial court to compel the union to permit inspection of its books and records and was granted a writ requiring the union to permit him to inspect all records and books of account at any time during business hours.

On appeal, the California Supreme Court stated: "It would seem clear that a member of an unincorporated labor union is entitled to inspect its financial records. . . . It is to the best interests of the union that any misuse of its funds be immediately revealed, and it would serve no useful purpose to require that the examination of the books be delayed until the member has followed the procedure required by the union in ordinary matters."

Duration of Checkoff Provision. The Superior Court of Pennsylvania held⁸ that after the termination of a collective bargaining agreement providing for a checkoff of union membership dues, an employer could not deduct dues covering a period during which the agreement was in effect.

The employer and the union in this case had entered into a collective bargaining agreement which became effective May 1, 1947, and was to continue in full force and effect until May 1, 1949. The agreement provided that on the first payday of each month the employer would deduct union

dues from the pay of all members who had worked at least 40 hours in the preceding calendar month and who had signed authorizations for such deductions.

The pertinent part of written checkoff authorizations signed by the employees provided: "This assignment and authorization shall be effective . . . for a period of one (1) year from the date appearing above or until the termination date of the current collective bargaining agreement between the Company and the Union whichever occurs sooner." Section 302 (c) (4) of the Labor Management Relations Act requires that checkoff clauses in collective bargaining agreements contain such a provision.

The contract between the company and the union expired May 1, 1949. On May 6, 1949, the employer had deducted from the wages of the employees from whom he had received checkoff authorizations dues owing for the month of April 1949 and placed the funds in the custody of the courts. The employees, claiming their checkoff authorization expired with the agreement between the employer and the union, demanded that the dues checked off on May 6, 1949, be returned to them. The union, pointing out that the amounts deducted represented dues for a period when the agreement was still in effect demanded that the amounts deducted be turned over to it.

The court found that since the contract between the parties expired on May 1, 1949, the checkoff authorizations were void after that date and a deduction of union dues on May 6, 1949, was improper in spite of the fact that the dues were deducted for the month of April 1949.

⁸ *Horn and McDonald, of United Steelworkers of America v. \$1,950* (Pa. Super. Ct., June 11, 1957).

Chronology of Recent Labor Events

August 1, 1957

E. I. DU PONT DE NEMOURS & Co. announced wage increases of 10 to 15 cents an hour for about 4,000 hourly and salaried workers not covered by union contracts in its Belle Works in the Charleston, W. Va., area, effective August 5. About the same time, similar wage advances were put into effect by the Union Carbide and Carbon Corp. (Union Chemicals Co. Division) for its 10,000 non-union workers in that area. (See also p. 1249 of this issue.)

August 2

A wage dispute between the Oil, Chemical and Atomic Workers and the Goodyear Atomic Corp., involving the company's Portsmouth, Ohio, plant, was settled when the union members accepted the company offer of a 13-cent hourly pay raise—with 11 cents retroactive to April 30—plus another 9 cents an hour on April 30, 1958. (See also p. 1249 of this issue.)

THE Federal court of appeals in New York ruled, in *International Association of Machinists v. National Labor Relations Board*, that, under the union-security provision of a collective bargaining contract, a union may lawfully compel the discharge of an employee delinquent in the payment of his dues even though the employee belatedly tenders his back dues in full before actual discharge. The court rejected the Board's theory permitting such late payments.

THE California Supreme Court ruled, in *Mooney v. Bartenders Union, Local 284*, that a member of an unincorporated union who was denied permission by the local union to examine its financial records is entitled to such an inspection and need not exhaust the appeal procedures as required by the international union's constitution before seeking court relief. (See also p. 1244 of this issue.)

August 6

THE Minimum Wage and Industrial Safety Board in Washington, D. C., ordered minimum wage rates for women and minor workers in the city's retail trade raised from \$30 to \$36 for a 36- to 40-hour workweek, effective in October. (See also p. 1250 of this issue.)

1246

THE President established an emergency board under the Railway Labor Act to investigate a wage dispute between the Masters, Mates and Pilots and 11 major railroads operating ferryboats and tugs in New York harbor.

A 1-year contract with West Coast shipbuilders was ratified by 10 unions affiliated with the Pacific Coast District Metal Trades Council. The agreement, retroactive to July 1, provides for an across-the-board wage increase of 15 cents an hour plus fringe benefits valued at 5 cents an hour for about 12,000 workers in more than 120 establishments. (See also p. 1248 of this issue.)

August 8

AN Interstate Commerce Commission examiner ruled against certification for operation in interstate commerce, as required by the Interstate Commerce Act, of the Nebraska Short Line Carriers, Inc., a group of 12 nonunion carriers, because the carriers may encounter labor difficulties in interlining with carriers bound by hot-cargo agreements with unions. The examiner held that nothing in the act would justify the use of certificate procedures for compelling carriers to cross picket lines and that, if the National Labor Relations Board offers no solution to the problem, the only remedy would be congressional action.

August 9

PRESIDENT EISENHOWER nominated AFL-CIO President George Meany as a United States delegate to the 12th session of the United Nations General Assembly. Mr. Meany is the first labor leader named to such a position.

August 11

MEMBERS of Local 6 of the International Typographical Union in New York City ratified a new 2-year contract with the Printers League Section of the New York Employing Printers Association, Inc., providing for weekly wage increases of \$10 in 2 steps for employees in job printing shops and increasing the minimum number of apprentices allowed in a shop.

Later in the month, the union's annual convention at New York City amended its general laws to permit locals to negotiate a 4-day, 32-hour workweek.

August 14

THE California Metal Trades Association and the Machinists agreed on a 2-year contract, thus ending a 44-day work stoppage that idled about 12,000 workers. The agreement, covering 134 of the association's 160 members, provided for wage increases of 13 to 20 cents an hour, retroactive to July 1, and an across-the-board raise of 11 cents next year plus cost-of-living adjustments and other benefits. Earlier, 26 members of the association

separately agreed to hourly wage increases of 20 to 30 cents in the first year and of 15 to 18 cents in the second year and fringe benefits, which included a provision for 80 hours' paid sick leave.

August 16

THE AFL-CIO Executive Council ended a 5-day session in Chicago, Ill. Among other actions, the Council set a special meeting in New York City on September 24 and 25 to act on the Federation's Ethical Practices Committee's final report on charges of corruption in the Teamsters union; tentatively accepted the Brotherhood of Railroad Trainmen's application for affiliation; changed the site of the Federation's convention beginning on December 5 from Miami Beach to Atlantic City; and branded the Administration's "tight money" policy a mistaken remedy for inflation. (See also p. 1251 of this issue.)

August 19

EASTMAN KODAK Co., in Rochester, N. Y., announced a wage increase of about 5 percent for 41,500 hourly rated and salaried employees, effective September 8.

THE UNITED STATES SENATE confirmed John J. Gilhooley of Brooklyn, N. Y., for the post of Assistant Secretary of Labor, formerly held by Harrison Hobart who resigned about 3 years ago. Mr. Gilhooley has been Secretary of Labor Mitchell's special assistant for almost 4 years.

August 20

RATIFICATION of contracts with three Great Lakes cargo ship operators was announced in Cleveland by the Independent Lake Sailors Union. The pacts provided for

hourly wage increases ranging from 7 to 9 cents retroactive to July 1, and 5 to 6 cents effective August 1, 1958, liberalized vacations, and other benefits for 1,100 unlicensed crewmen.

THE NLRB ruled that, for collective bargaining purposes, it is not bad-faith bargaining for an employer to withhold from a union information regarding his financial status, e. g., production and sales figures, if he has not pleaded inability to raise wages. The case was *Pine Industrial Relations Committee, Inc.*, Bend, Oreg., and *Local Unions 8-7 and 8-122, International Woodworkers of America*.

August 27

THE AFL-CIO Ethical Practices Committee served charges on the Teamsters union concerning James R. Hoffa, a Teamster vice president, based primarily upon his testimony in August before the Senate Select Committee on Improper Activities in the Labor or Management Field.

On the same day, the Teamsters general executive board authorized an investigation of the 6 "paper" unions in New York City which the Select Committee charged were set up by Hoffa in order to influence the 1956 election of officers to the New York City Teamsters' Joint Council (see Chron. item for Mar. 21, 1956, MLR, May 1956, and also p. 1253 of this issue).

August 28

TEAMSTER PRESIDENT Dave Beck was indicted a second time on charges of income tax evasion (see Chron. item for May 2, 1957, MLR, July 1957). His son and four others were charged by a Federal grand jury in Tacoma, Wash., with conspiring with him to conceal the true amount of his taxable income in 1951-53.

Union Conventions, November 16 to December 15, 1957

<i>Date</i>	<i>Organization</i>	<i>Place</i>
November 18.....	Leather Workers International Union of America.....	New York, N. Y.
December 5.....	American Federation of Labor—Congress of Industrial Organizations.	Atlantic City, N. J.

Developments in Industrial Relations*

AUGUST brought pay increases to substantial groups of workers in the chemical industries, settlement of two newspaper strikes, and negotiation of new contracts in some West Coast metal trades shops and shipyards. The announcement of the July Consumer Price Index presaged automatic wage increases for 1.3 million workers beginning in September. Further corrective measures against corrupt unions were taken within the labor movement while the Senate Select Committee on Improper Activities in the Labor or Management Field probed into labor-management collusion in the New York area and the many faceted activities of Teamster Vice President James R. Hoffa.

Collective Bargaining and Wage Developments

Metalworking. In West Coast shipyards, a 1-year master agreement retroactive to July 1 advanced hourly wage rates by 15 cents and provided 5 cents an hour in addition to be used for paid holidays for about 12,000 workers represented by 10 unions constituting the Pacific Coast District Metal Trades Council. The loftsmen and layers-out in the Boilermakers union received an additional 10 cents an hour, bringing their skill differential to 25 cents above the journeyman rate. The International Association of Machinists, which bargains jointly with the council, rejected the shipbuilders' offer but later accepted it, while the Carpenters and Joiners—another noncouncil member—separately negotiated similar terms for 1,000 shipwrights and riggers.

The California Metal Trades Association and the Machinists reached agreement on a new 2-year contract on August 14, thus ending a 44-day work stoppage that had idled about 12,000 workers. The settlement provided hourly wage increases of 13 to 20 cents retroactive to July 1, 1957, and an 11-cent across-the-board wage increase plus a cost-of-living wage escalation clause, both in the second year of the contract. Other terms included

an 8th paid holiday and 3 weeks' vacation after 12 instead of 15 years' service.

A 12-day unauthorized strike that had idled about 12,000 employees of Great Lakes Steel Corp. in Ecorse, Mich., ended on August 14 when members of Local 1299, United Steelworkers of America were ordered to return to work by the international union's district director. An accumulation of local grievances apparently caused the workers to walk off their jobs. David J. McDonald, president of the Steelworkers, announced before the strike ended that the local's officers had been suspended and that the local had been placed under administration of a staff representative of the international union.

A savings plan for salaried employees not covered by a union contract was announced by the Aluminum Company of America on July 26. Employees may authorize payroll deductions of 2 to 8 percent, depending on length of service, and the company will contribute 50 percent of this amount which will be invested in Alcoa common stock. The plan, subject to Government approval, will go into effect later this year and will be made permanent if approved by company stockholders in April 1958.

Printing. About 5,500 employees of commercial printing plants in New York City were scheduled to receive a two-step weekly increase of \$10 in equal instalments on August 12 of this year and on July 1, 1958. The 2-year agreement was negotiated by the International Typographical Union and the Printers League Section of the New York Employing Printers Association, Inc.

Employees of newspapers in both Boston, Mass., and Detroit, Mich., were idled by disputes involving newspaper mailers during the month. In Detroit, a 7-day stoppage ended on August 24 after representatives of 3 newspapers—the News, the Free Press, and the Times—and of all the unions that hold contracts with the publishers agreed to resume publication while the cases of 67 mailers discharged at the News for refusing to work overtime were to be processed through established grievance procedures. The Free Press and the Times, which along with the News are represented by the Detroit Newspaper Publishers

*Prepared in the Division of Wages and Industrial Relations of the Bureau of Labor Statistics, on the basis of currently available published material.

Association in contract negotiations, had suspended publication after the Teamsters refused to cross the mailers' picket lines at the News. The Detroit dispute was complicated by the fact that the independent International Mailers Union is seeking certification as bargaining agent for the mailers, now covered by International Typographical Union contracts with the newspapers. Mr. Woodruff Randolph, president of ITU, in referring to the intervention of James Hoffa in achieving settlement of the Detroit newspaper strike, warned that the city's newspapers would be "in slavery" to the Teamsters if they allowed the union "to dominate their entire labor relations." The president's executive secretary, Harry A. Reifin, asserted that the Teamsters were supporting the International Mailers Union (Ind.) which he claimed was an outlaw, racketeering union.

A 20-day work stoppage in Boston ended on August 29 after about 300 mailers also represented by the ITU voted to accept a wage package offered by 3 newspaper companies—the Boston Herald Traveler Corp., the Globe Newspaper Co., and the Hearst Corp.—and to submit their wage demands over and above the companies' offer to arbitration. The agreement provided for a \$4.50 weekly increase retroactive to January 1, 1957, an additional \$2.50 weekly increase on resumption of publication, and a \$3.25 weekly wage increase plus an additional 25-cent weekly employer contribution into the union's welfare fund, effective January 1, 1958.

Chemicals and Allied Products. A number of companies in the chemical and allied industries announced package increases affecting over 50,000 hourly and salaried employees not covered by union contracts. Eastman Kodak Co., a manufacturer of instruments and plastics, granted pay raises effective September 8 amounting to about 5 percent for 41,500 employees. Rate increases ranging from 10 to 15 cents an hour were put into effect August 5 in the Charleston, W. Va., area, by E. I. du Pont de Nemours & Co. for about 4,000 employees of its Belle Works and by Union Carbide and Carbon Corp. (Union Carbide Chemicals Co. Division) for 10,000 of its employees. Union Carbide added an eighth paid holiday (already in effect for du Pont employees) and

raised premium pay for holidays worked from double time to double time and a half.

The Union Carbide Nuclear Co. Division negotiated a 3-step pay increase totaling 13 cents an hour with 2 unions representing approximately 7,000 hourly employees at the Oak Ridge, Tenn., plants which it operates for the Atomic Energy Commission. The Atomic Trades and Labor Council advanced a wage reopening scheduled for October 1957 (in a 3-year contract running to October 1958) and settled on a 4-cent hourly increase retroactive to July 1957, 7 cents more on October 15, and an additional 2 cents on January 15, 1958. The Oil, Chemical and Atomic Workers union negotiated identical terms in lieu of a 7-cent deferred increase due in October 1957.¹

The Goodyear Atomic Corp. and the Oil, Chemical and Atomic Workers signed a new 3-year contract on August 5 covering about 1,500 workers at the Pike County, Ohio, plant which the company operates for the Atomic Energy Commission. The agreement provided hourly wage increases of 11 cents retroactive to April 30, 1957, an additional 2 cents on August 5, 1957, plus 9 cents on April 30, 1958. It also provided for the reopening of wage negotiations on April 30, 1959, and for company-union control of seniority rights. The new contract was announced the day before the expiration of an 80-day injunction issued under the Taft-Hartley Act on May 15 to end a 6-day work stoppage.

On July 31, the Gulf Oil Corp. announced a liberalization of its employee benefit program to provide larger pensions for most employees (especially those with long service), improved group life insurance, and increased company contributions to the savings plan. Employees may now contribute up to 9 percent of their pay to the savings plan instead of the former 7 percent. More than 33,000 employees were affected.

Footwear and Clothing. A retirement plan effective October 1, 1958, and covering approximately 22,000 of the International Shoe Co.'s 36,000 employees was negotiated by the Boot and Shoe Workers and the United Shoe Workers. Pensions to those aged 65 with at least 15 years' service will be financed by company payments of 3 percent of gross payroll. Benefits will amount to \$18.75 a month for those with 15 years' service and will be increased by \$1.25 for each year of service

¹ See Monthly Labor Review, December 1955, p. 1492.

from the 16th to the 30th, to a maximum of \$37.50. Pensions will also be paid to employees permanently disabled after age 50 with 15 years' service or at any age after 25 years' service. The plan also affects production employees in unorganized plants as well as office and supervisory workers not already covered by the company's existing program. The 3-year contract agreed to late in 1955 provided that it would be terminated in 1957 unless agreement was reached on a pension plan.²

Endicott Johnson Corp., a major shoe manufacturer with plants in New York and northern Pennsylvania, instituted a pay increase of 5 cents an hour for its 18,000 employees not covered by union contracts.

The International Ladies' Garment Workers' Union notified 3 major manufacturing associations in the women's coat and suit industry of its desire to discuss pay increases in view of the 5.4-percent rise in the Consumer Price Index from May 1953 to June 1957. A clause in the existing 5-year contracts in the industry permits wage increase demands whenever the Index rises by at least 5 percent from the date of the latest cost-of-living pay increase.³ The ILGWU's request preceded announcement of a further advance in living costs as reflected by the July Index.

Trade. Accord on a 1-year contract providing for pay raises and liberalized fringe benefits was reached by the Teamsters and Montgomery Ward and Co. in July, following nearly 3 months of neogotiations. Wage increases ranging from 7 to 24 cents an hour retroactive to June 1 went to 16,000 workers in mail-order houses, warehouses, and pools (special item warehouses), as well as to nonselling employees of retail stores attached to mail-order houses. A flat \$2 per week was added to the wages of about 4,000 full-time retail sales personnel. Other contract changes included a guaranteed minimum weekly income, some reduction in working hours, provision for length-of-service pay advances (after 3 and 9 months), and improved overtime pay (establishment of time and a half for Saturday work, time and one-half after 8 hours daily instead of 40 hours weekly, and double time instead of time and one-half for work on Sundays for nonsales employees).

Minimum wages of 15,000 women and minors employed in retail trade in the District of Colum-

bia were raised, effective October 1957, by the D. C. Minimum Wage and Industrial Safety Board. The minimum rate for workers on a 36-to 40-hour week was to be increased from \$30 to \$36 a week, and for those working in excess of 40 hours a week and for part-time workers, to be increased from 85 cents to \$1 an hour (90 cents to part-time minor students upon special certification by the board). In addition, a minimum bonus for workers on split shifts was set at \$1 a day while minimum call-in pay was provided—a minimum of 4 hours for full-time workers and 2 hours for part-time workers.

A \$2.30 weekly wage increase announced August 20, retroactive to March 1, 1957, the contract reopeners date, was awarded under arbitration to about 3,500 members of the Retail, Wholesale and Department Store Union employed at Bloomingdale Bros. in New York City. Part-time workers received proportional pay increases amounting to about 5 cents an hour, but compensation for commission salesmen was not changed. Minimum weekly rates were raised by \$1, bringing the wage for beginners to \$43 with automatic progression to \$51 in 4 steps over an 18-month period. Greater increases were ordered for warehouse employees.

Transportation. On August 9, the Train Dispatchers Association reached agreement with most of the Nation's railroads on a 3-year contract covering about 3,300 employees, providing them the equivalent of 12½ cents an hour retroactive to November 1, 1956, the first year. The succeeding increases were equivalent to 7 cents an hour with 5.5 cents of the second year adjustment earmarked to pay for a hospitalization-medical-surgical plan. A cost-of-living escalator clause was also included.

A brief strike by approximately 1,000 drivers, represented by the Teamsters, against a score of milk-hauling companies comprising the Dairy Transport Association in the New York City metropolitan area was ended on August 21. The new contract called for a wage increase of 70 cents an hour over a 3-year period, with 40 cents paid immediately and 15 cents in each of the next 2 years. The package, reportedly valued at 86½ cents an hour, included establishment of a pension program. In addition, the workweek was re-

² See *Monthly Labor Review*, February 1956, p. 207.

³ See *Monthly Labor Review*, July 1953, p. 764.

duced from 6 days (48 hours) to 5 days (40 hours), with overtime to be paid after 10 hours a day. The first year's wage increase was designed to provide the same pay for a 50-hour week as the workers had been receiving for 60 hours of work.

Cost-of-Living Adjustments. A rise in the Bureau of Labor Statistics Consumer Price Index for July (to 120.8 percent of the 1947-49 average) brought automatic wage increases of 1 to 6 cents an hour in September to over 1.3 million workers. The pay gains for almost all these workers, including over 960,000 in the automobile and related products industries, 120,000 at Westinghouse, and almost 100,000 in farm machinery, were 3 cents an hour.

Union Developments

Executive Council Action. The American Federation of Labor and Congress of Industrial Organization's Executive Council met in regular session in Chicago in mid-August. Among the actions taken during the 4-day session were the transfer of the Federation's biennial convention from Miami Beach to Atlantic City, rejection of a proposal that the Federation recognize an organization of their field staff organizers, and further review of developments associated with problems of union jurisdiction and corruption.

Confronted with a unique representation situation, the Council voiced doubt that there could be a "normal employer-employee relationship" between the AFL-CIO and the Field Representatives Federation, a union of organizers on the Federation staff. It held that the organizers, who are "promoted" from the ranks instead of being hired on the open market, are a part of "management" and already members of other unions—such as the Office and Professional Employees Union and American Newspaper Guild. The group, which had petitioned the National Labor Relations Board for a representation election after it

failed to convince the Federation that it represented a majority of the 225 organizers, reportedly had no specific complaints but sought assurance of security in the event of a slackening of organizing activity.

The Council approved an application from the Brotherhood of Railroad Trainmen for membership within the AFL-CIO, contingent upon resolution of certain jurisdictional issues and elimination of a racial discrimination clause in its constitution.

The Council also directed a special subcommittee to make another attempt to secure compliance with a Federation decision⁴ ordering the Sheet Metal Workers to install industrial ventilating equipment manufactured by the United Steelworkers at the Burt Manufacturing Co. in Akron, Ohio. The president of the Sheet Metal Workers insisted that there was no boycott and stated he would again instruct his members not to interfere with the handling of Burt products.

The Executive Council also issued statements urging enactment of the civil rights bill being considered by Congress (although criticizing it as a "weakened" measure), an "up to date comprehensive" housing program, and adequate disclosure legislation covering financial operations of all health, welfare, and pension plans.⁵ The volunteered services of hundreds of building trades unionists in contributing time and labor to rebuilding homes for Louisiana victims of a recent hurricane were praised and viewed as indicative of organized labor's concern with the community. (Members of two entertainment unions—the American Guild of Variety Artists and the American Federation of Musicians—also teamed up to give a benefit performance for New Orleans' fund-raising campaign for disaster aid.) The AFL-CIO Community Services Committee was also lauded for its participation in resettling Hungarian refugee workers in this country. Additional grants totaling \$140,000 from the William Green Memorial fund were announced for religious and medical organizations.

On the alleged dissatisfaction of some union leaders with the AFL-CIO official position of cooperating with the Senate Select Committee on Improper Activities in the Labor or Management Field,⁶ George Meany, president of the AFL-CIO, reiterated that the committee was "good for labor" until it proved to be otherwise. He added, however, that he would "resist any attempt (by the

⁴ See *Monthly Labor Review*, June 1957, p. 725.

⁵ "The demand of the commercial insurance lobby and of some employer spokesmen for the privilege of immunity from the disclosure requirement should not be allowed to obstruct the enactment of a comprehensive disclosure law," an Executive Council statement said.

⁶ At a New York State CIO convention held at about the same time, a number of union officials denounced the Senate Committee as a springboard for antilabor forces and stated that the AFL-CIO's policy of expelling affiliates that fail to eject exposed officers did not solve the problem of unethical practices.

Congress) to fasten restrictive laws on labor because of the sins of a few."

The Ethical Practices Committee submitted to the Executive Council interim reports on three unions accused of being dominated by corrupt influences—the Teamsters, United Textile Workers,⁷ and the Bakery Workers. Committee hearings on the Teamsters were rescheduled for September while further action on all three groups was to be taken at a special Council meeting later in that month.

Other Meetings and Conventions. Disclosures before the Senate Select Committee that substantial numbers of Negro and Puerto Rican workers in the New York City area were being victimized by "paper" unions and "sweetheart" contracts sparked a cleanup drive against racketeers by AFL-CIO leadership who centered action around its Joint Committee to Erase the Exploitation of Spanish Speaking Peoples that had been formed last spring. The Committee planned to enlist the support of legitimate unions in sponsoring an educational campaign among the affected workers. These workers' employers would then be requested to withdraw recognition of racketeer locals or face strike action. A month long strike against both a "phantom" Jewelry Workers local and two establishments having agreements with the local reportedly led to the replacement of the local by District 65 of the Retail, Wholesale and Department Store Union and to a new contract with increased wages and improved working conditions, through the efforts of the Committee. Previously, the firm had refused to bargain with the Department Store Union on the grounds that the existing "contract" was binding, but the workers contended they had never been informed of its existence.

Other actions led another Jewelry Workers' local to withdraw from a hat plant which had reportedly been deducting unauthorized union dues and initiation fees. Under a new contract with the United Hatters, the company agreed to raise pay, contribute to a health and welfare fund, and guarantee that the factory would not be moved for 2 years. In addition, it agreed to pay a "fine" of \$15 a man in strike benefits, since the union contended that "the workers had paid the price for a phony contract that protected the employer. Now it was up to the employer to pay for clean unionism."

Stimulated by the investigations into unethical practices, several unions took steps to "clean up" their organizations. A new slate of officers was elected and the constitution revised at a special convention of the Allied Industrial Workers, currently on probation.⁸ One amendment aimed against "paper locals" required a minimum of 18 signatures on an application for a new local charter. Another change prohibiting international officers from receiving additional compensation for duties performed on behalf of a local was adopted to prevent practices attributed to Anthony Doria, deposed secretary-treasurer of the international. The new leadership, which included Carl W. Grienpentrog as replacement for resigning President Earl Heaton, was instructed to repudiate a "severance" pay pledge previously voted Mr. Doria by the Executive Board and to take other steps to rebuild the union.

Earlier in the month, the AFL-CIO Building and Construction Trades Department met in special convention in Atlantic City amid rumors of a rift with the Federation leadership, but these were rapidly dispelled by the moderate tone adopted toward the controversial issue of jurisdiction between industrial and craft unions. The delegates were assured by George Meany that a further meeting of the AFL-CIO Committee on Jurisdiction, which represents the two groups, would be called to clarify the peace formula announced in July.⁹

In its first constitutional revision in 40 years, the Department adopted amendments to permit wider participation in departmental affairs by subordinate groups and to modernize its governing rules. These changes included an increase in the number of convention delegates from affiliated unions, enlargement of the Department's Executive Council (from 8 members to 10), accreditation of 1 delegate each from local and State building trades councils to the Department's biennial conventions, an increase in per capita dues from 1 to 2 cents a month, establishment of annual affiliation fees for councils, and appointment of regional directors to coordinate functions of State and local councils.

⁷ At the end of July, the Committee heard officers of the UTW defend themselves against the charges.

⁸ See *Monthly Labor Review*, July 1957, p. 856.

⁹ See *Monthly Labor Review*, September 1957, p. 1111.

Meanwhile, the Sheet Metal Workers and Boilermakers Union signed an agreement that sought to clarify their respective lines of jurisdiction in the construction industry. The procedure for resolving disputes called for initial handling at the local level and for subsequent referral to representatives of the two international organizations. The pact also aimed at mutual assistance in collective bargaining and organizing activities. Joint committees were to meet periodically to review the functioning of the agreement, which has a 1-year duration with provisions for automatic renewal for a second year.

Viewing Congressional failure to provide additional Federal school aid as "appalling," the 41st convention of the American Federation of Teachers in Chicago called upon President Eisenhower to summon a special session this fall to enact appropriate legislation. The delegates resolved to register their opposition at the polls to those members of Congress who voted against the funds, but they rejected a proposal of New York City delegates that the AFL-CIO's Committee on Political Education sponsor desirable Congressional candidates—as inappropriate to the committee's function. Stronger legislation was advocated to expedite integration in the educational system by ending discrimination in housing, a practice viewed as fostering segregated urban schools. Support of an impending AFT drive to double its membership of about 50,000 was pledged by the AFL-CIO's organizing director. In a resolution stating that there was evidence that the States alone could not provide higher salaries and other school funds because of obsolete and inequitable tax systems, the union's research department was directed to undertake a study of tax resources available for education in each State.

A constitutional amendment permitting locals to negotiate contracts for a 4-day, 32-hour work-week instead of the present 5-day, longer schedule was adopted by the International Typographical Union at its annual convention in New York. After 13 years as president of the international, Woodruff Randolph announced that he would not run for reelection in 1958 because of "personal health."

¹⁰ See *Monthly Labor Review*, April 1957, p. 402.

¹¹ The three-convicted Johnny Dio, currently awaiting sentence in a New York prison on a labor shakedown charge, pleaded innocent during the month to a Federal indictment for evasion of some \$20,000 in income taxes for the years 1950 through 1952.

Senate Investigations. The U. S. Senate Select Committee on Improper Activities in the Labor or Management Field focused its hearings during August on New York City rackets, and on an alleged drive by Teamster Vice President James R. Hoffa for control of eastern trucking through the help of underworld characters and fraudulent methods. The appearance of Mr. Hoffa, who had become the leading contender for the union's presidency, climaxed 3 weeks of questioning and testimony designed to show that—

(1) Teamster charters were issued at Mr. Hoffa's initiation to "paper" locals in an effort to swing a 1956 election for head of the Teamsters Joint Council No. 16 in New York City, representing 125,000 metropolitan truckdrivers,¹⁰ away from incumbent Martin T. Lacey in favor of Mr. Hoffa's candidate John J. O'Rourke. Mr. Lacey retained the office temporarily after a court ruled the John O'Rourke victory invalid because of the spurious locals' votes.

(2) Locals of the Allied Industrial Workers (formerly the AFL United Automobile Workers) reportedly controlled by John Dioguardi¹¹ were transferred to the Teamsters through the intervention of James Hoffa. At the same time Johnny Dio reportedly controlled these locals, his Equitable Research Associated Corp. was selling small shop owners "sweetheart contracts" and protection from strong union organization. These agreements yielded company payoffs or union dues and initiation fees with only negligible benefits for the employees—largely Negroes and Puerto Ricans.

(3) The Allied Industrial Workers, which was currently on probation as an AFL-CIO member, lost hundreds of thousands of dollars to resigned officials—\$16,000 to compensate Johnny Dio for alleged "investments" made in union affairs, although he had submitted no vouchers to support his claim; \$80,000 to Anthony Doria, with \$25,000 paid in cash and the balance in promissory notes, which he was suing to collect; and some \$300,000 in assets allowed Angelo Inciso, when he resigned as president of a Chicago local after being charged with welfare fund corruption by the Senate Subcommittee on Welfare and Pension funds in 1956. Mr. Dio, as well as some of his associates repeatedly invoked the Fifth Amendment but Mr. Doria volubly defended him. As for his own activities, Mr. Doria insisted that he had properly spent about \$50,000 of union money that he per-

sonally kept, subject to no accounting to the rank and file. He denied that a \$25,000 check from a former real estate partner, Spyros Kallas, had any connection with the latter's \$35,000 profit from buying and reselling the AIW's Milwaukee headquarters in 1954. An accusation that he appropriated \$9,600 in assets from a defunct Connecticut local for a personal investment was explained as a bookkeeping mixup, with the funds actually used for legitimate union purposes. Testimony by a former labor leader, Lester Washburn, that Mr. Dio had been on the payroll of the International Ladies' Garment Workers' Union to help organize a Roanoke, Va., plant in 1950 was challenged by ILGWU president, David Dubinsky. In an affidavit, Mr. Dubinsky stated that Mr. Dio had never been employed by his union but instead had actually represented management.

The Committee attempted to elicit from James Hoffa the nature of his business dealings and his ties with known racketeers. Mr. Hoffa testified that he had repaid about \$50,000 of the \$120,000 borrowed since 1952 from Teamster locals, union officials and subordinates, and businessmen—some with Teamster union contracts. These loans, usually interest free and without collateral, were used for a variety of ventures including many that failed. However, his wife and the wife of an associate reportedly expanded a \$4,000 investment in a truck transporting firm into a \$125,000 profit over 7 years from dealings with a company for which Mr. Hoffa had settled a strike. Defending his business transactions in the trucking industry as putting one "in a better position at the bargaining table," he said he was nevertheless divesting himself of those enterprises in line with the AFL-CIO "conflict of interest" bans. Mr. Hoffa also pledged that he would clean up the union if elected president, professing himself "shocked and disturbed" over the Committee's revelations of hoodlum infiltration of the union.

Questioned about the nearly \$9,000 of union funds used to pay Washington hotel bills for persons who had been there during his recent bribery trial, Mr. Hoffa said that his union voted the necessary funds for his defense and that he assumed that others had been given similar authorization. Testimony before the Committee had indicated that as trustee for certain locals, Mr. Hoffa appointed managers accused of extortion and misuse of union funds for personal benefit.

To refresh his repeated lapses of memory, 8 court-ordered wire-tapped transcripts of his telephone conversations with Dio were presented during Hoffa's 4 days before the Committee. Before recessing, the Senate Committee criticized the Teamster official for his inability to recall specific events and scheduled him to return with his personal records at a later, unannounced date. A 48-point "indictment" of Hoffa's behavior was drawn up which included charges of conflict-of-interest loans and stock purchases as well as questionable expenses, associates, and use of union funds.

Other Teamster Developments. Difficulties beset other Teamster leaders during the month. Frank Brewster (chairman of the Western Conference of Teamsters) was sentenced to a year's imprisonment and a \$1,000 fine for refusing to testify before the Senate Government Operations Committee, while Mr. Beck was indicted for a second time on charges of income tax evasion—in this case, \$184,000 which he owes the Government for the years 1951-53.

At the end of the month, the Teamster executive board met to draft a reply for the hearing scheduled before the Ethical Practices Committee September 5 and 6 on charges of corruption. It also decided that a special union committee, to be named by outgoing union president, Dave Beck, investigate New York union affairs—particularly the charters for which Hoffa allegedly was primarily responsible. A review of New York City Teamster contracts was already underway to learn if any were substandard.

New York Government Actions. During the month, Mayor Robert Wagner of New York announced that the city government's facilities would be mobilized in an attack upon labor racketeering and unscrupulous employers blocking honest union representation. Appropriate departments were designated to receive and act upon worker complaints and 2 committees were to be appointed—1, composed of representatives of labor, industry, city officials, and the Puerto Rico Labor Department, to review progress and plan strategy; the other, to study possible changes in Federal and State laws relating to labor. The New York City Labor Department was reported to be cooperating with the Association of Catholic Trade

Unionists and the local office of the Puerto Rico Labor Department in appealing to the workers to make known their grievances.

Other Developments

The question of recent credit policies and responsibility for recent price rises was debated throughout the month by representatives of both labor and management. The AFL-CIO Executive Council charged the administration with having "blundered" and "undermined" a business boom by tight money policies that, it said, restrict business and consumer demand. Spokesmen for individual unions held that price increases of major companies were unjustified and were aimed at raising profits beyond already high levels. At Senate Judiciary subcommittee hearings on "administered prices," United Steelworkers leaders asserted that the United States Steel Corp. could achieve the same goal if it sought greater sales volume through price decreases. The union's contention that productivity had risen more than costs was disputed by U. S. Steel chairman, Roger M. Blough, who stated that higher wages and other expenses compelled the company to advance prices and that such action was not inflationary because it exerts only a "negligible" effect on the cost of living.

Price increases already put into effect by the 4 leading rubber companies and reportedly planned by the "big 3" automobile producers for their 1958 models drew criticism from the presidents of the United Rubber Workers and United Automobile Workers. In letters to the General Motors Corp., Ford Motor Co., and the Chrysler Corp., Mr. Reuther proposed that each manufacturer reduce wholesale prices by an average of at least \$100 below the 1957 level and promised in return to draft UAW's contract demands within the framework of the companies' ensuing financial position. The UAW declared itself willing to be guided by the judgment of an "impartial review" if a question arose as to

whether the granting of the union's demands necessitated cancellation of all or part of the \$100 reduction.

The plan was publicly rejected by all 3 companies which characterized it as "propaganda," "another publicity measure," or "suggestive that management abdicate its responsibilities" by permitting pricing to enter the domain of collective bargaining. Auto producers held that the rise in automobile prices had been moderate and had been exceeded by that in wages. General Motors chairman, Harlow Curtice, offered a counter proposal that the union demonstrate its concern with fighting inflation by extending the present contract terms for 2 years beyond the spring of 1958, the current expiration date.

At the U. S. Steel Corp.'s zinc works in Donora, Pa., 460 United Steelworker members exercised an option in their contract to choose supplemental unemployment benefits instead of from 4 to 8 weeks' wages as severance pay when the plant shuts down permanently in November. The workers, under the plan, could receive approximately 65 percent of their take-home pay for a maximum of 52 weeks, including maximum State benefits of \$35 a week for 30 weeks.

The problem of disposition of a \$1-million welfare fund upon a plant's shutdown was solved when a Michigan court released the reserves to finance a health program for former employees of Kaiser-Frazer Corp. The company-financed welfare fund was negotiated by Kaiser-Frazer and the United Automobile Workers in 1948 to benefit 22,000 employees, but only a few hundred were retained after the Willow Run plant closed in 1953. The court approved a plan providing free diagnostic medical examinations and treatment for minor ailments to former employees, and it set aside \$20,000 for hospitalization and life insurance for 250 workers still employed at an Ohio plant. The balance of the money is to be used to pay for life insurance policies, and Blue Cross and Blue Shield benefits for the company's pensioners until the fund is depleted.

Book Reviews and Notes

EDITOR'S NOTE.—*Listing of a publication in this section is for record and reference only and does not constitute an endorsement of point of view or advocacy of use.*

Special Reviews

The Theory of Wage Determination: Proceedings of a Conference Held by the International Economic Association. Edited by John T. Dunlop. London, Macmillan & Co., Ltd., 1957. xv, 437 pp. \$7.50, St. Martin's Press, Inc., New York.

The Round Table Conference of the International Economic Association was held in 1954 at Seelisburg, Switzerland. The setting, which has seen some of the world's great collective bargaining sessions on political matters, appeared particularly appropriate for an international discussion of wage determination. Thirty-five economists from 13 "free world" countries discussed 22 papers. These have been skillfully organized into a volume which may well become the labor economist's primary reference work. It is equally as important for the unresolved questions it raises as for the agreements reached.

The papers are arranged into six major groups: (1) the task and problems of contemporary wage theory; (2) the general level of wages; (3) the impact of the labor union; (4) the wage structure; (5) the nature of bargaining; and (6) labor market and labor supply. A final section of the book includes an informative summary of the debates in which both critique and amplification of ideas highlight the interaction of the hypothetical and empirical as they focus on each of the topics.

The wide range of ideas, models, and other tools of analysis naturally impose strict selectivity in a brief review, an eclecticism which would be further bound by the reviewer's particular interest. Fortunately, the participants themselves reviewed the work of the Conference, providing their own appraisals of some of the significant points developed. Unanimity of opinion was hardly obtainable among 35 economists, but some general agreements were reached. On the question of the wage-price spiral, the consensus seemed to be that wage increases were not the cause of inflation; that if there were an upper limit for wages above which inflation sets in, it was indeterminate in terms of the level of employment, alone.

The discussion of wage structure revolved primarily around the role of wage differentials in the allocation of labor, with most discussants agreeing that wage differentials were only one of the influencing factors. The wage structure in various countries was explicitly analyzed in six of the papers and formed an integral part of a number of other papers.

Professor Kerr enlivened the debate by advancing the view that unions became unimportant in the wage determining process when they became old and strong. His thesis was that unions became too responsible so that in another sense they became irresponsible in their obligations to society. He found some implicit support for these views among the assembled economists.

This volume is an important contribution to the continuing reappraisal of general economic hypotheses in terms of the role of wages. The contemporary body of knowledge, containing more extensive empirical data than ever before, has been exposed and incisively examined in these papers from a variety of wage formulation environments. The Conference provided an opportunity for some cross-fertilization, and if there are any operative Mendelian laws in the area of ideas, a new generally accepted theory of wage determination may be forthcoming.

—NORMAN J. SAMUELS
Bureau of Labor Statistics

Human Relations in Business. By Keith Davis. New York, McGraw-Hill Book Co., Inc., 1957. 557 pp. \$6.50.

"Human relations" has become a "glandular" term to many in the industrial relations field, including this reviewer, and mention of much of the jargon associated with the phrase produces involuntary reactions. The fact is that I have been exposed to so much huckstering by human relations consultants as to strain the objectivity and impassivity required of a reviewer. Too many unsupportable claims have been made for human relations programs.

A bias thus exposed, it is without guile to term this book as useful. It ranges over the wide field of management-labor problems and management organization problems and discusses the human relations aspects of each of them. Mr. Davis does not pretend to be engaged in original research. He is modest in his claims to knowledge, painstaking in the organization of his material, simple and articulate in his manner of expression, and imaginative in his illustrations of his points. The result is a very workmanlike compendium of information on the respects in which human relations research, thinking, programs, and results might be of importance to an industrial manager.

The book is suitable for informational reading or for study groups. Each chapter closes with questions based upon the text and with a list of supplementary readings. The last 95 pages of the book consist of 14 provocative problem cases with guides for discussion and study.

Mr. Davis' interest in human relations does not involve that goal of employee-manipulation which trade unions find so objectionable. Indeed, his entire treatment of trade unions and their impact upon human relations problems in industry shows a commendable understanding of the role and functions of trade unions.

At points, the book delineates the obvious at great length and in unnecessary detail. It is afflicted to some extent with the interaction charts and diagrams (follow that dotted line!) which impress, but confuse more than they enlighten. But after this criticism has been stated, it must be concluded that the book should be valuable to anyone desiring a review of the most recent developments in human relations. The student, however, after reading this volume, would do well to read the essays contained in the most recent

annual volume of the Industrial Relations Research Association entitled *Research in Industrial Human Relations—A Critical Appraisal* (edited by Conrad M. Arensberg and others and reviewed in the March 1957 issue of this periodical). That volume contains considerable critical comment with respect to human relations programs and findings which the reader will not find within the covers of Mr. Davis' valuable textbook.

—PETER SEITZ

Arbitrator and Consultant, New York City

British and American Manufacturing Productivity—A Comparison and Interpretation. By Marvin Frankel. Urbana, University of Illinois, Bureau of Economic and Business Research, 1957. 130 pp. (Bulletin Series, 81.) \$1.50.

Marvin Frankel, accepting the limitations of available output, employment, and related data, has nevertheless built a valid, intelligent framework of productivity measurement and interpretation. Census data in the United Kingdom and the United States have permitted productivity comparisons between 18 and 16 percent, respectively, of the manufacturing industry of each, with metals and machinery virtually unrepresented. In concept and approach, Frankel's work is indebted to that of Rostas. To this reviewer, the final two chapters and the section in Chapter II on the historical development of United States-Great Britain productivity differences are the most searching. An investigation into the average ages of stocks of capital and how they are affected by rates of growth provides a clue to the American-over-British advantage. The economy that grows swiftly can bypass the replacement handicap in capital equipment and adopt new production systems "in toto," thereby obtaining a productivity advantage. This has happened in the United States.

The writer's projection of past trends resulted in a finding that labor productivity in British manufacturing must increase by nearly 8 percent per annum (presuming a 3-percent rate in the United States) if it is to achieve equality in level by 1975. The author logically concludes that there is little hope of Great Britain's overtaking the United States in the complex art of lowering unit man-hour requirements. But he does not

discount the possibility of an improvement in Britain's relative position. In appraising the sharp gain in British productivity since World War II, Frankel suggests that much of it was due to short-run, nonrepeating factors and was accomplished mainly through a reorganization of work methods—redeployment.

More attention to the roles of the rate of capacity of operations, the social climate within the plant, labor-management relations, and such market forces as the European consumers' insistence on product differentiation, would add to this study. Little attention is paid to raw material utilization, an area where British factories, especially shoe plants, surpass their American counterparts and partly compensate for lower labor productivity. Also, an estimate of relative productivity at the plant level based upon studies of unit man-hour requirements available in the two countries might aid in substantiating the author's conclusions.

—WENDELL D. MACDONALD
Bureau of Labor Statistics

The Politics of Industry. By Walton Hamilton. [Ann Arbor], University of Michigan, 1957. 176 pp. (William W. Cook Foundation Lectures, 8.) \$3.50, Alfred A. Knopf, Inc., New York.

New Frontiers for Professional Managers. By Ralph J. Cordiner. New York, Columbia University, Graduate School of Business, 1956. 121 pp. (McKinsey Foundation Lecture Series, 1.) \$3.50, McGraw-Hill Book Co., Inc., New York.

Each of these books is a good illustration of an institution characteristic of colleges and universities—the endowed lectureship.

Walton Hamilton, professor emeritus of law at Yale University and now engaged in private practice in Washington, D. C., has written the thoughtful type of seminar paper that is most enjoyed while sitting around the fireplace in the home of a professor. Many of his statements are thought provoking and controversial, delivered in a manner exhibiting great erudition in its finest sense.

He defines politics in the Aristotelian sense as an overall term for the usages and traditions, for the arrangements and policies through which men are governed. Industry is synonymous with the

national economy. Initially, he sets forth several articles of personal disbelief—the national economy presents a uniform landscape, a sharp antithesis exists between public and private interests, and our economy is a system of free enterprise. Then, he examines the intermingling of government and private industry in four distinct areas: (1) the administrative agency as a price-fixing mechanism; (2) patents and licenses as a means of extending corporate control; (3) the international sphere that becomes important to an increasing number of corporations who straddle national boundaries; and (4) corporate regulation, where he raises the question whether political institutions can adapt themselves to an economy in which bigness is a fact of life.

Ralph Cordiner, president of the General Electric Co., is lecturing to a more limited group—those interested in the management of large organizations. The material is primarily expository, discussed in crisp language, and delivered in a simple and labeled fashion.

He discusses the role of the corporation in national life with particular reference to the 11 characteristics which distinguish General Electric. The philosophy of decentralization is explained by 10 principles, the procedure by which it was adopted in his organization in 7 steps, the first of which is to sharpen up the 10 objectives of the company as a whole. He concludes with a discussion of the three major problems facing management in the future: long-range planning; organizing, communicating, and utilizing information for decisionmaking; and human motivations.

—DONALD M. IRWIN
Office of Assistant Secretary for Standards and Statistics
U. S. Department of Labor

The Use Made in French Industry of Inter-Firm Comparisons Carried Out in the United States and in France. (In Productivity Measurement Review, European Productivity Agency, Paris, April 1957, pp. 1-50. 50 cents, Organization for European Economic Cooperation Mission, Washington.)

The drive after World War II to increase productivity in Europe was beset with many difficulties. One of these was limited communication of ideas on better production methods and improved managerial techniques. The lack of communica-

tion in no small way stemmed from a reluctance by owners and managers to divulge trade secrets which would help their competitors.

The influence of American industry practices with regard to the exchange of information and ideas is evident in a series of plant productivity studies carried out in France and summarized in this special issue of the quarterly *Productivity Measurement Review*. The issue reviews briefly the aims and methods of the studies, problems encountered, and followup action taken by firms as a consequence of examining the plant data. Most of the studies were carried out by the French Centre d'Études et de Mesures de Productivité (CEMP); others were conducted by various industry productivity centers, many of which were created as a result of the initiative of CEMP.

The initial impetus for the French plant productivity studies came from a series of case studies on factory performance which had been prepared by the U. S. Department of Labor's Bureau of Labor Statistics. Most of these were translated into French and distributed to appropriate industries. The *Productivity Measurement Review* contains some notes on the use made of these reports by individual firms. Their effectiveness varied widely, depending on the specific product and the comparability of French and American firms in terms of size, degree of organization of firms, and complexity of the manufacturing processes. According to the Review, "the chief effect of the BLS reports in most cases seems to have been the psychological shock they produced by expressing in figures the disparity (in productivity) already observed by missions sent to the United States."

—LEON GREENBERG
Bureau of Labor Statistics

Concentration in Canadian Manufacturing Industries. By Gideon Rosenbluth. New York, National Bureau of Economic Research, 1957. 152 pp. (General Series, 61.) \$3.50, Princeton University Press, Princeton, N. J.

This short but informative book describes a study of industrial concentration in Canada, and the results of that study. It should be of considerable interest to those concerned with concentration within industry, and should be of real value to those who are concerned with the problems of measurement of such concentration.

Although a major portion of the book is devoted to a description of the methods used in the study and to the problems encountered and their solution, the results of the study are by no means neglected.

Of particular interest are the author's statistical analysis of factors accounting for variation in concentration among industries, and his finding that differences in industry size, capital-labor ratio, and the importance of transportation cost account for at least three-fifths of the variation. The author discusses trends in concentration to the extent that data permit, and shows comparative data for Canada and the United States. These indicate considerable similarity between the two countries with respect to industrial patterns, but show a somewhat greater degree of concentration in Canada.

—O. B. RAILEY
Bureau of Employment Security

Automation

The Challenge of Automation for Cities. By Edwin S. Howell. (In *Public Management*, Chicago, July 1957, pp. 147-150. 50 cents.)

The New Revolution in the Cotton Economy—Mechanization and Its Consequences. By James H. Street. Chapel Hill, University of North Carolina Press, 1957. 294 pp., bibliography. \$5.

Benefits and Benefit Plans

Employee Benefit Programs—An Outline. By Michael T. Wermel and Geraldine M. Beideman. Pasadena, California Institute of Technology, Industrial Relations Section, Benefits and Insurance Research Center, 1957. 32 pp., bibliography. (BIRC Publication 6.) \$1.

Regulation of Employee Benefit Programs. By Duncan M. MacIntyre. (In *Industrial and Labor Relations Review*, Ithaca, N. Y., July 1957, pp. 554-578. \$1.50.)

Company Severance Pay Plans. By George H. Haas and Elizabeth R. Floyd. New York, American Management Association, 1957. 47 pp. (Research Report 29.) \$1.50; \$1 to AMA members.

Collective Bargaining

Collective Bargaining: Proceedings of the Seventh Annual National Forum on Trucking Industrial Relations, San Francisco, Calif., September 18-20, 1956. Wash-

ington, American Trucking Associations, Inc., Industrial Relations Department, 1957. 178 pp. \$10.

Collective Bargaining in Atomic-Energy Construction. By Kenneth M. McCaffree. (*In Journal of Political Economy*, Chicago, August 1957, pp. 322-337. \$1.75.)

Seventh Annual Conference of Hofstra College Labor-Management Institute, Hempstead, Long Island, March 22-23, 1957 [Selected Papers]. (*In Labor Law Journal*, Chicago, August 1957, pp. 537-558. \$1.)

Education and Training

President's Committee on Education Beyond the High School—Second Report to the President. Washington, July 1957. 114 pp. 55 cents, Superintendent of Documents, Washington.

Training Supervisors by "Feedback". By Lester Tarnopol. (*In Personnel Journal*, Swarthmore, Pa. July-August 1957, pp. 92-96. 75 cents.)

Report on an International Conference on Vocational Training. (*In International Labor Review*, Geneva, May 1957, pp. 450-467. 60 cents. Distributed in United States by Washington Branch of ILO.)

International Technical Assistance in Vocational Training. (*In International Labor Review*, Geneva, June 1957, pp. 514-529. 60 cents. Distributed in United States by Washington Branch of ILO.)

The Kentucky Apprenticeship Program. Frankfort, Kentucky Department of Industrial Relations, State Apprenticeship Council, [1957]. 16 pp.

Planning the Pre-Job Program for Brickmason Apprentices. Washington (1227 Munsey Building), National Joint Bricklaying Apprenticeship Committee, 1957. 12 pp.

Employment and Unemployment

Employment Aspects of Planning in Underdeveloped Economies. By K. N. Raj. Cairo, National Bank of Egypt, 1957. 48 pp.

Employment Trends in France in 1956. (*In Industry and Labor*, Geneva, June 15, 1957, pp. 473-480. 25 cents. Distributed in United States by Washington Branch of ILO.)

Federal Assistance to Labor Surplus Areas. A Report prepared by the Legislative Reference Service of the Library of Congress. Washington, United States House of Representatives, Committee on Banking and Currency, 1957. 89 pp., bibliography. (Committee Print, 85th Cong., 1st sess.)

The Problem of Depressed Areas. By Howard D. Marshall. (*In Labor Law Journal*, Chicago, July 1957, pp. 488-493. \$1.)

Health and Welfare

Assessing the Health of the Industrial Worker. By R. S. F. Schilling. (*In British Journal of Industrial Medicine*, London, July 1957, pp. 145-149, bibliography. 12s. 6d.)

Problems and Solutions of Health and Welfare Programs: Part A, Improving Value and Reducing Costs. New York, Foundation and Employee Health, Medical Care and Welfare, Inc., 1957. 48 pp. (Study 1.) 35 cents.

Health and Welfare Plans in California Union Agreements. (*In California Industrial Relations Reports*, Department of Industrial Relations, Division of Labor Statistics and Research, San Francisco, May 1957, pp. 3-10.)

Air Pollution Research and Control in Great Britain. By Albert Parker. (*In American Journal of Public Health and the Nation's Health*, New York, May 1957, pp. 559-569. \$1.)

Income

Personal Income By States Since 1929. By Charles F. Schwartz and Robert E. Graham, Jr. Washington, U. S. Department of Commerce, Office of Business Economics, 1956. 229 pp. \$1.50, Superintendent of Documents, Washington.

Regional Income. By Conference on Research in Income and Wealth. New York, National Bureau of Economic Research, Inc., 1957. x, 408 pp. (Studies in Income and Wealth, 21.) \$8, Princeton University Press, Princeton, N. J.

1956 Income by Counties in New Mexico. By Vicente T. Ximenes. Albuquerque, University of New Mexico, College of Business Administration, Bureau of Business Research, 1957. 48 pp. (New Mexico Studies in Business and Economics, 5.) \$2.

Labor Legislation

Federal Labor Laws and Agencies—A Layman's Guide. Washington, U. S. Department of Labor, Bureau of Labor Standards, 1957. 119 pp. (Bull. 123, rev.) 40 cents, Superintendent of Documents, Washington.

Limits of State and Federal Jurisdiction in Respect to Labor Disputes. By Clarence M. Updegraff. Iowa City, State University of Iowa, College of Commerce, Bureau of Labor and Management, 1957. 18 pp. (Research Series, 17.) 25 cents (free to Iowa State residents).

Compilation of the South Dakota Employment Security Law Including 1957 Amendments. Aberdeen, South Dakota Employment Security Department, 1957. 55 pp

Indiana Employment Security Act—Chapter 208, Acts of 1947 as Amended by Acts of 1951, 1953, 1955, 1957. Indianapolis, Indiana Employment Security Board, 1957. 112 pp.

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Labor Movement

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A.—Employment and Payrolls

TABLE A-1. Estimated total labor force classified by employment status, hours worked, and sex

[In thousands]

Employment status	Estimated number of persons 14 years of age and over ¹														
	1957 ²							1956					Annual average		
	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	1956	1955
Total, both sexes															
Total labor force.....	71,833	73,051	72,661	70,714	69,771	69,562	69,128	68,638	69,855	70,560	70,905	70,866	71,787	70,387	68,866
Civilian labor force.....	68,994	70,228	69,842	67,803	66,951	66,746	66,311	65,821	67,029	67,732	68,082	68,069	68,947	67,530	65,847
Unemployment.....	2,609	3,007	3,337	2,715	2,600	2,882	3,244	2,479	2,463	1,909	1,998	2,195	2,551	2,654	
Unemployed 4 weeks or less.....	1,386	1,582	2,028	1,398	1,251	1,167	1,335	1,645	1,231	1,401	964	1,019	1,011	1,214	1,138
Unemployed 5-10 weeks.....	506	731	620	520	507	684	883	808	580	443	408	368	491	594	598
Unemployed 11-14 weeks.....	247	201	182	161	224	368	288	292	183	182	117	139	223	211	217
Unemployed 15-26 weeks.....	238	234	261	377	439	410	390	312	238	233	209	261	237	301	367
Unemployed over 26 weeks.....	222	260	247	260	267	253	227	188	247	204	211	209	233	232	336
Employment.....	66,385	67,221	66,504	65,178	64,261	63,865	63,190	62,578	64,550	65,269	66,174	66,071	66,752	64,979	63,193
Nonagricultural.....	59,562	59,449	58,970	58,519	58,506	58,431	57,996	57,643	59,446	59,000	58,683	59,487	58,394	56,464	
Worked 35 hours or more.....	45,992	44,272	46,988	47,116	47,230	46,989	46,183	46,638	48,306	43,158	46,867	47,371	45,975	46,062	45,046
Worked 15-34 hours.....	5,637	5,969	6,241	6,576	6,671	6,699	7,134	6,612	6,553	11,164	7,305	5,963	5,710	6,715	6,422
Worked 1-14 hours.....	2,110	2,345	2,498	2,942	2,920	3,065	2,894	2,672	2,804	2,775	2,646	2,516	2,171	2,648	2,261
With a job but not at work ⁴	5,823	6,863	3,243	1,886	1,684	1,678	1,787	1,721	1,772	1,980	2,182	2,834	5,631	2,969	2,736
Agricultural.....	7,772	7,534	6,659	5,755	5,434	5,195	4,935	5,110	4,922	1,92	1,737	7,388	7,265	6,585	6,730
Worked 35 hours or more.....	4,918	5,742	5,402	4,616	3,851	3,492	3,254	3,032	3,245	4,163	5,384	5,554	5,300	4,577	4,887
Worked 15-34 hours.....	1,364	1,514	1,622	1,523	1,411	1,352	1,264	1,162	1,175	1,445	1,305	1,348	1,384	1,399	1,332
Worked 1-14 hours.....	317	366	396	351	356	364	454	471	460	433	350	329	361	416	314
With a job but not at work ⁴	224	190	115	170	137	225	222	270	229	151	134	157	219	192	196
Males															
Total labor force.....	49,745	50,307	50,160	48,657	48,214	48,006	47,692	47,498	47,927	48,303	48,340	48,490	49,682	48,579	48,054
Civilian labor force.....	46,940	47,517	47,375	45,870	45,428	45,223	44,908	44,714	45,135	45,506	45,550	45,697	46,875	45,756	45,041
Unemployment.....	1,596	1,813	2,054	1,665	1,809	1,950	2,045	2,150	1,663	1,466	1,124	1,152	1,319	1,008	1,732
Employment.....	45,344	45,713	45,321	44,204	45,620	43,273	42,813	42,564	43,470	44,042	44,428	44,546	45,556	45,148	45,290
Nonagricultural.....	39,935	39,738	39,647	38,982	38,747	38,635	38,331	38,244	39,112	39,020	39,007	39,056	39,880	38,870	37,803
Worked 35 hours or more.....	32,992	31,823	33,713	33,251	33,027	33,046	32,439	32,619	33,620	30,422	33,036	33,519	32,980	32,536	31,897
Worked 15-34 hours.....	2,711	2,882	2,984	3,165	3,350	3,290	3,424	3,291	3,304	6,232	3,482	2,771	2,869	3,388	
Worked 1-14 hours.....	1,010	1,096	1,309	1,246	1,218	1,228	1,143	1,219	1,190	1,126	1,123	1,012	863	1,135	967
With a job but not at work ⁴	3,299	4,015	1,854	1,257	1,122	1,111	1,040	1,190	1,193	1,240	1,306	1,754	3,168	1,810	1,681
Agricultural.....	5,391	5,973	5,674	5,222	5,823	6,638	4,482	4,320	4,358	4,022	5,419	5,490	5,676	4,278	5,487
Worked 35 hours or more.....	4,221	4,862	4,499	4,566	3,560	3,279	3,076	2,854	2,668	3,474	4,484	4,411	3,953	4,268	
Worked 15-34 hours.....	741	754	820	815	912	856	867	825	773	837	601	636	732	806	777
Worked 1-14 hours.....	231	238	260	249	282	309	354	400	378	307	226	242	308	233	
With a job but not at work ⁴	198	121	96	152	118	194	185	240	210	137	128	144	191	171	177
Females															
Total labor force.....	22,088	22,745	22,501	22,056	21,556	21,557	21,436	21,140	21,928	22,258	22,565	22,405	22,105	21,808	20,842
Civilian labor force.....	22,054	22,711	22,467	22,023	21,523	21,524	21,403	21,894	22,224	22,532	22,372	22,071	21,774	20,806	
Unemployment.....	1,013	1,213	1,283	1,050	882	932	1,026	1,094	814	997	847	876	943	903	
Employment.....	21,041	21,508	21,183	20,974	20,641	20,592	20,377	20,013	20,810	21,227	21,748	21,125	21,196	20,831	19,904
Nonagricultural.....	19,609	19,711	19,323	19,537	19,738	19,796	19,655	19,399	20,327	20,056	19,994	19,627	19,607	19,524	18,661
Worked 35 hours or more.....	12,999	12,449	13,275	13,865	14,203	13,943	13,745	14,018	14,680	12,736	13,831	13,852	12,995	13,526	13,147
Worked 15-34 hours.....	2,926	3,078	3,257	3,411	3,322	3,439	3,710	3,321	3,475	4,932	3,823	3,192	2,841	3,327	3,164
Worked 1-14 hours.....	1,159	1,335	1,402	1,632	1,672	1,847	1,666	1,529	1,585	1,649	1,523	1,504	1,308	1,513	1,294
With a job but not at work ⁴	2,524	2,849	1,389	628	562	567	544	531	579	740	817	1,080	2,463	1,158	1,055
Agricultural.....	1,433	1,797	1,860	1,437	883	796	712	614	752	1,171	1,754	1,898	1,589	1,307	1,243
Worked 35 hours or more.....	697	879	902	609	291	213	178	178	248	422	1,010	1,070	789	585	589
Worked 15-34 hours.....	623	760	802	708	499	496	398	337	403	608	614	712	652	594	555
Worked 1-14 hours.....	86	129	137	101	74	56	100	71	82	126	124	103	119	108	81
With a job but not at work ⁴	26	29	19	18	19	31	36	30	20	14	6	13	28	21	19

¹ Estimates are based on information obtained from a sample of households and are subject to sampling variability. Data relate to the calendar week ending nearest the 15th day of the month. The employed total includes all wage and salary workers, self-employed persons, and unpaid workers in family-operated enterprises. Persons in institutions are not included.

Because of rounding, sums of individual items do not necessarily equal totals.

² Beginning with January 1957, two groups numbering between 200,000 and 300,000 which were formerly classified as employed (under "with a job but not at work") were assigned to different classifications, mostly to the unemployed. For a full explanation, see Monthly Report on the Labor Force.

February 1957 (Current Population Reports, Labor Force, Series P-57, No. 176).

³ Survey week contained legal holiday.

⁴ Includes persons who had a job or business but who did not work during the survey week because of illness, bad weather, vacation, or labor dispute. Prior to January 1957, also included were persons on layoff with definite instructions to return to work within 30 days of layoff and persons who had new jobs to which they were scheduled to report within 30 days. Most of the persons in these groups have, since that time, been classified as unemployed.

SOURCE: U. S. Department of Commerce, Bureau of the Census.

TABLE A-2. Employees in nonagricultural establishments, by industry¹

(In thousands)

Industry	1957								1956						Annual average	
	Aug. ²	July ³	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	1956	1955	
Total employees.....	52,838	52,600	52,881	52,482	52,270	51,919	51,704	51,716	53,639	53,007	52,952	52,663	52,258	51,878	50,056	
Mining.....	854	856	858	835	833	831	833	837	837	837	836	842	839	816	777	
Metal.....	113.1	114.2	112.4	111.9	110.8	110.2	110.2	110.2	111.1	111.3	112.4	113.8	110.2	108.3	101.4	
Iron.....	36.4	38.9	38.2	36.1	34.8	34.9	35.1	35.7	36.5	38.0	38.8	36.5	34.6	34.2		
Copper.....	33.2	33.4	33.0	33.5	33.9	33.7	33.6	33.7	33.6	33.8	33.6	33.8	33.6	33.3	28.9	
Lead and zinc.....	17.5	17.5	17.4	18.2	18.3	18.3	18.3	18.3	18.1	17.7	17.7	17.3	17.4	17.4	16.6	
Anthracite.....	31.0	30.6	26.6	28.5	30.4	30.8	31.1	31.8	30.6	30.3	29.8	30.0	29.7	31.3		
Bituminous-coal.....	231.8	230.4	241.9	238.7	239.0	240.1	242.9	242.0	242.4	240.7	240.6	239.4	235.3	230.8	218.7	
Crude-petroleum and natural-gas production.....	361.1	354.8	340.0	339.8	338.8	338.7	336.5	336.1	335.4	333.1	338.5	342.9	330.8	317.1		
Petroleum and natural-gas production (except contract services).....	216.3	212.0	203.6	204.0	202.3	201.8	200.4	197.6	197.6	197.3	202.9	205.6	196.4	189.0		
Nonmetallic mining and quarrying.....	120.7	119.3	118.7	118.2	115.3	111.8	110.0	111.8	115.7	118.7	119.9	120.6	120.9	116.2	108.3	
Contract construction.....	3,299	3,286	3,232	3,082	2,906	2,756	2,673	2,667	2,997	3,174	3,296	3,342	3,361	2,993	2,759	
Nonbuilding construction.....	730	714	663	572	514	496	502	580	647	608	715	722	606	516		
Highway and street.....	332.6	321.5	296.2	273.3	196.9	184.9	191.5	233.3	274.1	309.7	324.2	329.1	263.3	232.4		
Other nonbuilding construction.....	367.8	392.0	366.8	324.7	314.1	310.6	310.4	346.9	372.8	388.5	391.2	392.9	342.6	284.0		
Building construction.....	2,550	2,518	2,419	2,334	2,242	2,177	2,165	2,417	2,527	2,508	2,627	2,639	2,387	2,243		
General contractors.....	1,044.7	1,005.5	977.5	944.6	898.7	878.2	885.7	1,001.6	1,054.7	1,099.1	1,116.5	1,130.0	995.1	922.6		
Special-trade contractors.....	1,505.7	1,512.5	1,441.1	1,389.4	1,343.3	1,208.5	1,279.5	1,415.5	1,472.5	1,498.7	1,510.9	1,509.3	1,391.8	1,324.8		
Plumbing and heating.....	330.8	342.7	333.7	334.6	331.8	331.5	334.1	345.7	351.1	355.9	355.2	351.8	334.0	317.0		
Painting and decorating.....	224.7	205.2	190.5	176.5	159.0	148.9	151.5	176.4	192.0	203.8	214.0	217.8	179.5	162.3		
Electrical work.....	245.2	237.2	223.5	218.2	219.5	221.0	223.2	228.7	226.4	226.4	221.2	218.8	198.1	168.4		
Other special-trade contractors.....	705.0	727.4	653.4	660.2	633.0	597.1	609.7	664.7	703.0	712.6	720.8	725.9	680.2	673.1		
Manufacturing.....	16,949	16,698	16,852	16,762	16,322	16,393	16,945	16,959	17,159	17,180	17,238	17,119	17,035	16,965	16,563	
Durable goods ⁵	9,807	9,752	9,913	9,895	9,927	9,976	9,902	9,990	10,067	10,071	9,999	9,826	9,780	9,549		
Nondurable goods ⁶	7,142	6,946	6,939	6,867	6,895	6,957	6,953	6,969	7,088	7,113	7,239	7,293	7,255	7,080	7,014	
Ordnance and accessories.....	123.3	124.8	126.7	127.6	129.4	130.0	130.6	132.0	132.9	131.5	131.0	131.6	129.3	130.6	130.2	
Food and kindred products.....	1,648.7	1,571.3	1,510.7	1,451.8	1,433.1	1,430.8	1,429.2	1,459.0	1,521.8	1,573.1	1,659.3	1,738.1	1,707.1	1,652.0	1,536.9	
Meat products.....	328.7	325.7	320.7	320.3	323.1	325.4	328.2	350.8	353.5	347.9	342.6	340.9	337.4	325.9		
Dairy products.....	111.0	109.8	104.3	101.5	99.4	98.7	102.6	103.8	107.3	107.6	112.2	117.2	109.3	112.7		
Canning and preserving.....	245.3	197.1	168.2	166.1	158.0	159.5	164.9	183.0	215.8	300.7	392.6	358.9	231.1	227.4		
Grain-mill products.....	115.3	113.2	113.5	114.4	116.1	116.3	116.3	117.0	118.6	120.1	121.0	121.9	117.8	121.3		
Bakery products.....	292.5	289.5	287.6	286.5	285.9	286.2	286.3	290.8	292.1	293.1	290.7	292.0	289.1	285.9		
Sugar.....	28.0	27.1	25.0	25.4	25.2	25.9	25.3	30.4	42.7	46.8	44.6	29.8	27.1	32.4		
Confectionery and related products.....	72.3	73.8	73.5	75.6	77.4	79.1	81.1	86.6	86.6	87.2	83.8	77.9	79.3	79.8		
Beverages.....	234.1	229.4	218.8	209.0	207.2	204.2	211.1	218.2	224.7	226.6	235.3	211.1	205.3	204.0		
Miscellaneous food products.....	144.1	145.1	140.2	135.9	135.7	135.4	134.8	136.0	138.0	139.9	140.7	143.6	140.0	140.4		
Tobacco manufactures.....	103.3	79.9	82.5	81.9	82.8	85.9	92.6	97.3	101.7	104.7	112.4	114.7	106.1	97.3	102.2	
Cigarettes.....	34.2	34.3	33.7	33.7	33.7	33.7	34.2	34.3	34.6	34.2	34.2	34.3	34.5	34.2	33.0	
Cigars.....	29.9	32.6	32.9	33.4	33.4	33.7	33.1	34.4	34.7	34.1	33.8	33.5	34.5	38.1		
Tobacco and snuff.....	6.3	6.6	6.6	6.7	6.7	6.7	6.7	6.7	6.8	6.8	7.0	6.9	7.0	7.4		
Tobacco stemming and redrying.....	9.5	9.0	8.7	9.0	12.1	15.8	23.3	26.8	27.6	37.3	39.6	31.2	21.6	23.7		
Textile-mill products.....	1,003.9	986.4	1,004.2	1,003.6	1,012.1	1,020.1	1,024.5	1,026.9	1,039.3	1,046.7	1,049.5	1,046.8	1,047.8	1,057.3	1,077.0	
Scouring and combing plants.....	6.4	6.9	6.6	6.2	6.4	6.7	6.8	6.9	6.8	6.8	6.9	7.0	6.9	6.6	6.6	
Yarn and thread mills.....	115.0	117.7	118.1	118.5	119.2	120.5	120.7	121.1	121.5	120.5	120.8	120.7	123.0	129.9		
Broad-woven fabric mills.....	422.8	428.4	429.2	434.5	437.4	441.5	444.9	448.1	449.9	451.0	451.0	454.4	457.4	467.4		
Narrow fabrics and small wares.....	28.4	29.0	29.2	29.4	29.6	29.8	29.6	29.2	29.2	29.8	29.7	29.3	29.8	30.5		
Knitting mills.....	211.8	216.2	213.2	211.7	212.6	209.6	208.9	215.6	221.7	224.7	222.6	223.7	220.6	221.9		
Dyeing and finishing textiles.....	86.2	88.1	88.0	88.9	89.1	89.3	89.6	90.6	90.6	90.6	89.6	89.6	89.6	91.7	91.0	
Carpets, rugs, other floor coverings.....	49.0	49.4	51.1	52.8	54.3	55.2	54.0	58.8	53.5	53.7	53.6	51.6	54.2	53.1		
Hats (except cloth and millinery).....	10.2	10.6	10.0	10.9	11.5	11.5	11.1	11.8	11.7	11.3	11.9	11.7	12.3	13.1		
Miscellaneous textile goods.....	56.6	57.9	58.2	59.2	60.0	60.4	61.3	61.7	61.0	61.0	60.5	59.8	61.6	63.5		
Apparel and other finished textile products.....	1,215.3	1,157.3	1,180.5	1,173.2	1,204.5	1,233.4	1,228.5	1,209.2	1,227.4	1,226.9	1,230.4	1,217.9	1,220.5	1,215.4	1,206.3	
Men's and boys' suits and coats.....	117.5	122.8	121.0	122.6	124.8	124.8	124.5	125.9	125.1	125.8	125.7	124.1	119.7			
Men's and boys' furnishings and work clothing.....	302.7	309.4	304.9	307.2	310.1	309.0	303.3	305.6	311.1	317.8	316.8	318.9	315.4	309.7		
Women's outerwear.....	328.0	336.1	337.2	357.9	372.6	368.1	371.0	359.0	353.0	359.5	359.1	356.4	358.0			
Women's, children's undergarments.....	16.5	119.2	121.1	123.8	124.8	123.6	120.7	121.8	125.0	124.5	123.2	121.4	121.6	119.7		
Millinery.....	16.7	14.1	15.3	20.5	22.4	21.9	18.9	18.6	16.6	19.5	19.0	18.8	18.7	20.2		
Children's outerwear.....	78.8	79.6	75.4	72.6	76.5	78.4	75.8	74.9	75.1	77.0	75.7	74.9	74.8	73.0		
Fur goods.....	12.0	12.5	11.7	9.8	9.8	9.5	10.0	12.8	13.1	13.2	12.4	12.1	11.6	12.3		
Miscellaneous apparel and accessories.....	60.8	61.7	60.3	61.2	62.7	61.1	60.2	62.8	65.3	66.5	65.8	65.3	63.4	61.4		
Other fabricated textile products.....	124.3	125.1	120.3	129.0	129.7	128.1	127.7	134.0	136.0	133.8	128.7	124.3	129.1	132.3		

See footnotes at end of table.

TABLE A-2. Employees in nonagricultural establishments, by industry¹—Continued

(In thousands)

Industry	1957							1956							Average	
	Aug. ²	July ²	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	1956	1955	
Manufacturing—Continued																
Lumber and wood products (except furniture).....	715.2	714.1	729.7	708.1	680.0	660.9	657.4	662.9	696.9	723.9	754.4	770.9	789.2	741.4	746.6	
Logging camps and contractors.....	99.9	110.9	100.6	83.2	75.4	72.0	71.4	89.0	102.6	115.9	120.9	128.4	104.0	103.0		
Sawmills and planing mills.....	374.7	377.3	368.4	350.5	349.4	349.4	353.5	366.9	377.5	390.1	397.2	405.4	388.1	393.1		
Millwork, plywood, and prefabricated structural wood products.....	132.9	131.9	129.2	127.2	126.4	125.9	127.2	129.2	131.3	134.6	130.2	141.8	135.8	139.8		
Wooden containers.....	50.1	52.5	52.5	52.2	52.0	52.6	53.3	53.6	54.8	54.4	54.5	55.0	55.3			
Miscellaneous wood products.....	56.5	57.1	57.4	57.0	57.7	57.5	57.5	58.2	58.9	59.0	59.2	59.1	58.5	55.4		
Furniture and fixtures.....	376.0	369.3	371.8	368.6	372.5	373.1	373.9	373.0	380.4	381.0	386.0	384.8	379.6	379.0	368.2	
Household furniture.....	208.8	201.0	209.1	203.2	203.1	203.1	201.5	207.4	208.4	211.2	209.2	204.2	206.4	205.3		
Office, public-building, and professional furniture.....	46.9	47.5	47.1	47.6	47.4	47.9	47.4	48.0	48.2	48.9	49.4	49.6	48.1	44.2		
Partitions, shelving, lockers, and fixtures.....	38.9	38.6	38.1	37.7	37.6	37.6	38.3	38.5	37.7	39.1	39.5	39.3	37.9	37.7		
Screens, blinds, and miscellaneous furniture and fixtures.....	24.7	24.7	24.3	24.0	25.0	25.3	25.8	26.5	26.7	26.8	26.7	26.5	26.6	27.0		
Paper and allied products.....	577.3	570.0	578.7	573.1	575.0	574.6	573.1	575.7	580.1	577.0	577.2	578.3	577.4	569.9	550.0	
Pulp, paper, and paperboard mills.....	25.6	281.5	277.8	278.8	279.1	279.6	280.9	282.5	279.2	279.6	281.9	283.6	278.6	271.2		
Paperboard containers and boxes.....	157.1	158.1	157.1	157.1	156.7	155.9	157.6	160.5	161.9	161.2	159.3	157.9	156.7	148.3		
Other paper and allied products.....	157.3	158.4	158.2	158.8	157.6	157.2	157.1	159.5	159.4	159.6	157.1	155.9	155.2	150.5		
Printing, publishing, and allied industries.....	855.2	860.3	861.7	859.5	863.8	864.4	861.0	862.2	874.8	868.6	867.8	858.8	852.2	852.5	823.6	
Newspapers.....	320.0	321.8	320.5	320.0	319.5	318.8	317.3	321.0	316.7	317.7	316.1	314.5	313.7	302.1		
Periodicals.....	59.2	58.5	59.2	50.7	60.5	61.0	61.5	66.5	65.6	65.0	63.7	62.6	64.2	64.0		
Books.....	53.3	53.3	53.4	54.0	55.0	54.7	54.4	54.4	54.0	53.6	53.2	53.3	53.1	51.1		
Commercial printing.....	227.9	227.2	227.0	227.6	227.9	228.5	228.8	228.9	227.3	227.3	226.5	224.0	222.7	222.4	214.2	
Lithographing.....	62.1	62.5	62.1	62.6	62.7	62.1	62.2	64.0	64.5	64.3	63.6	62.8	63.1	62.0		
Greeting cards.....	17.3	17.6	16.6	16.4	16.3	16.2	17.2	17.7	20.0	20.3	19.8	19.3	18.8	18.9		
Bookbinding and related industries.....	45.6	46.1	45.9	46.4	45.9	45.9	46.2	46.5	46.1	46.7	46.8	46.4	46.0	42.9		
Miscellaneous publishing and printing services.....	74.9	74.7	74.8	77.1	76.6	76.5	75.3	74.8	74.4	73.7	71.6	70.6	71.2	68.4		
Chemicals and allied products.....	831.1	829.8	831.8	837.8	838.7	840.1	835.7	834.5	834.5	832.6	835.5	834.0	832.8	830.6	810.5	
Industrial inorganic chemicals.....	107.6	108.1	108.0	107.7	107.7	107.6	107.8	107.8	107.7	108.3	109.4	109.2	108.4	105.0		
Industrial organic chemicals.....	316.0	315.8	314.7	316.4	317.1	317.4	318.8	318.0	316.9	316.3	317.7	320.0	315.7	308.6		
Drugs and medicines.....	104.4	102.6	101.5	101.5	101.1	100.9	100.3	100.1	100.2	99.9	99.8	99.7	97.7	93.2		
Soap, cleaning and polishing preparations.....	50.5	50.7	50.1	50.3	50.6	50.6	50.2	50.1	50.3	50.6	50.7	51.5	50.3	49.8		
Paints, pigments, and fillers.....	79.0	77.9	77.5	77.0	76.6	76.6	76.4	76.2	76.5	76.4	76.7	77.4	76.2	73.8		
Gum and wood chemicals.....	8.8	8.5	8.6	8.7	8.7	8.6	8.5	8.5	8.4	8.4	8.4	8.4	8.4	8.0		
Fertilizers.....	30.4	33.5	42.5	44.9	42.0	36.7	34.4	33.3	32.2	33.7	31.9	30.1	36.0	36.7		
Vegetable and animal oils and fats.....	35.8	36.5	37.2	38.0	39.4	40.6	41.2	42.1	42.7	43.3	41.4	37.9	40.5	41.5		
Miscellaneous chemicals.....	96.7	98.2	97.7	97.3	96.6	96.7	96.9	97.9	97.7	98.6	98.0	97.4	93.9			
Products of petroleum and coal.....	261.4	260.7	259.1	257.2	256.8	255.6	255.9	253.0	255.2	256.0	257.0	259.1	261.2	254.3	252.8	
Petroleum refining.....	208.4	206.3	205.4	204.0	204.4	205.3	203.9	203.9	204.0	204.0	205.7	207.9	202.6	201.3		
Coke, other petroleum and coal products.....	52.3	52.8	51.8	51.3	51.2	51.4	49.1	51.3	52.1	53.0	53.4	53.3	51.7	51.5		
Rubber products.....	263.1	258.5	255.7	262.1	249.7	269.9	271.1	274.5	274.3	251.6	273.1	268.4	264.8	269.2	271.9	
Tires and inner tubes.....	110.1	104.5	110.7	97.5	113.1	113.1	113.6	113.6	94.6	112.3	112.3	114.1	111.5	115.4		
Rubber footwear.....	21.7	21.8	21.6	21.7	22.1	22.1	22.6	22.9	23.3	23.8	24.0	24.1	22.5			
Other rubber products.....	120.7	129.4	129.8	130.5	134.7	135.9	138.3	137.8	133.7	137.0	132.1	129.4	133.6	134.0		
Leather and leather products.....	382.9	372.3	373.9	366.3	375.3	382.3	381.3	376.8	379.7	376.1	376.3	377.0	385.4	381.5	382.9	
Leather: tanned, curried, and finished.....	40.5	41.0	40.4	47.0	40.9	41.5	41.7	42.2	42.2	42.3	41.8	42.5	42.7	44.6		
Industrial leather belting and packing.....	5.1	5.0	5.1	5.2	5.2	5.3	5.3	5.2	5.1	5.1	5.1	5.2	5.0			
Boot and shoe cut stock and findings.....	19.9	19.9	19.7	19.6	20.4	20.5	20.2	20.4	20.1	19.6	19.3	19.9	20.0	18.3		
Footwear (except rubber).....	243.0	243.6	238.4	243.7	242.8	246.2	245.8	248.2	239.6	237.6	239.9	247.0	246.3	248.4		
Luggage.....	17.0	17.1	16.8	16.6	16.8	16.5	15.9	16.3	16.4	16.6	16.6	17.2	16.6	16.8		
Handbags and small leather goods.....	29.6	30.2	29.2	32.6	34.0	35.0	33.0	33.9	35.2	37.2	36.2	35.7	33.7	33.1		
Gloves and miscellaneous leather products.....	17.2	17.1	16.7	16.6	16.8	16.0	14.7	16.6	17.4	17.9	18.1	18.0	17.0	16.7		
Stone, clay, and glass products.....	538.1	555.2	550.4	549.0	545.5	543.0	545.6	558.0	563.4	567.6	563.5	567.4	561.5	548.1		
Flat glass.....	30.6	30.7	30.7	31.5	32.3	33.4	34.2	34.9	35.0	34.7	34.3	34.2	34.2	33.5		
Glass and glassware, pressed or blown.....	94.1	97.7	96.0	94.8	94.1	93.1	93.6	95.5	96.9	97.4	92.3	94.9	95.0	93.7		
Glass products made of purchased glass.....	16.3	16.5	16.5	16.7	16.9	16.9	17.2	17.8	17.8	17.6	17.3	16.8	17.5	17.3		
Cement, hydraulic.....	30.3	41.5	42.6	42.2	42.4	42.3	42.4	43.2	43.4	43.6	44.0	44.4	43.4	42.6		
Structural clay products.....	83.6	83.3	80.7	80.5	79.3	78.1	80.5	83.2	84.6	87.1	88.4	88.8	86.9	82.5		
Pottery and related products.....	49.7	51.4	52.0	53.4	54.0	54.6	54.0	55.1	55.3	55.2	53.9	54.5	54.6	53.9		
Concrete, gypsum, and plaster products.....	121.5	122.2	120.2	117.6	114.8	113.3	112.9	116.1	118.3	119.9	121.3	122.3	117.6	111.7		
Cut-stone and stone products.....	19.0	18.9	19.1	19.2	18.9	18.8	18.8	19.2	19.4	19.4	19.6	19.3	19.5	19.8		
Miscellaneous nonmetallic mineral products.....	93.0	93.0	92.6	93.1	92.8	92.5	92.0	93.0	92.7	92.7	92.4	92.2	92.8	93.1		

See footnotes at end of table.

TABLE A-2. Employees in nonagricultural establishments, by industry¹—Continued

[In thousands]

Industry	1957							1956						Annual average	
	Aug. ²	July ³	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	1956	1955
Manufacturing—Continued															
Primary metal industries	1,297.4	1,301.8	1,318.9	1,318.7	1,328.0	1,338.2	1,348.8	1,355.4	1,357.3	1,353.6	1,350.6	1,345.0	1,307.6	1,311.0	1,284.1
Blast furnaces, steel works, and rolling mills	647.5	652.1	651.5	654.6	659.5	662.2	661.8	663.7	663.5	663.8	666.8	647.9	630.6	635.3	
Iron and steel foundries	224.6	229.0	229.8	231.5	234.9	240.4	241.8	242.9	242.9	242.9	241.0	234.8	237.8	241.0	230.5
Primary smelting and refining of non-ferrous metals	66.7	67.9	67.9	68.9	68.9	68.5	70.3	70.3	69.7	69.4	70.2	64.8	67.5	63.4	
Secondary smelting and refining of non-ferrous metals	14.1	14.1	14.4	14.4	14.4	14.5	14.5	14.5	14.3	14.6	14.3	14.1	14.3	13.0	
Rolling, drawing, and alloying of non-ferrous metals	109.8	112.3	112.2	112.4	109.7	112.2	115.8	115.8	115.8	114.1	116.3	110.3	116.9	114.0	
Nonferrous foundries	75.8	77.0	77.4	79.6	82.3	82.6	83.8	83.5	83.3	82.8	79.7	77.2	79.6	77.5	
Miscellaneous primary metal industries	163.3	166.5	165.5	166.6	168.5	168.4	167.4	166.9	166.4	164.9	163.1	155.5	161.1	150.4	
Fabricated metal products (except ordnance, machinery, and transportation equipment)	1,126.4	1,108.7	1,125.6	1,121.1	1,128.2	1,134.1	1,138.8	1,137.8	1,141.8	1,142.2	1,140.6	1,114.3	1,094.7	1,116.6	1,108.6
Tin cans and other tinware	59.8	58.4	56.6	57.4	55.4	54.7	53.8	53.3	53.4	58.5	61.7	61.6	57.7	58.3	
Cutlery, hand tools, and hardware	136.4	140.9	142.7	144.4	147.9	150.1	152.3	153.1	151.8	148.2	143.5	140.2	149.2	154.1	
Heating apparatus (except electric) and plumbers' supplies	110.0	111.4	111.7	111.4	111.6	110.3	113.6	117.0	121.2	121.2	119.6	121.4	125.7		
Fabricated structural metal products	332.1	334.2	327.5	323.4	322.1	320.2	317.0	316.7	316.6	315.8	314.0	312.5	303.4	278.2	
Metal stamping, coating, and engraving	223.5	228.7	230.4	236.0	240.6	244.1	246.3	247.5	246.6	242.3	226.1	218.9	234.3	242.4	
Lighting fixtures	50.8	51.1	52.2	52.0	52.7	53.4	53.2	53.8	53.4	52.9	49.8	48.7	50.8	51.6	
Fabricated wire products	39.4	60.4	60.6	62.1	62.8	63.8	63.0	65.1	64.9	64.0	61.6	59.2	61.9	61.1	
Miscellaneous fabricated metal products	136.7	140.5	140.4	141.2	141.2	140.9	139.9	138.7	139.1	137.7	136.4	134.0	137.9	137.2	
Machinery (except electrical)	1,668.7	1,685.7	1,714.6	1,728.4	1,750.1	1,764.0	1,763.6	1,752.4	1,740.5	1,722.2	1,711.0	1,711.6	1,707.6	1,716.4	1,592.3
Engines and turbines	81.9	83.9	84.1	85.0	85.5	86.5	85.8	86.5	84.1	82.6	81.2	79.6	74.3	74.3	
Agricultural machinery and tractors	142.8	146.6	147.7	152.4	157.3	154.7	149.4	144.9	139.2	134.4	142.3	142.1	149.5	154.3	
Construction and mining machinery	151.2	152.1	153.9	155.2	158.4	156.9	154.6	154.7	153.1	150.0	154.1	154.2	151.9	132.7	
Metalworking machinery (except metalworking machinery)	283.2	289.1	290.9	292.3	293.5	291.7	290.7	289.5	286.9	284.4	283.6	281.3	282.5	262.9	
Special-industry machinery (except metalworking machinery)	179.9	183.7	183.6	183.8	185.4	185.8	187.9	188.4	188.2	187.4	188.4	188.2	188.1	179.0	
General industrial machinery	266.9	267.3	266.7	268.2	269.2	269.3	267.3	267.3	265.7	265.0	264.5	259.6	236.8		
Office and store machines and devices	131.7	134.9	135.2	136.0	136.4	136.0	134.5	131.4	130.0	127.0	123.8	125.6	124.7	109.8	
Service-industry and household machines	174.1	179.6	187.3	192.9	196.7	199.6	198.5	196.1	193.7	195.9	197.7	198.6	205.6	189.3	
Miscellaneous machinery parts	274.0	277.4	279.0	282.5	284.0	282.3	282.7	281.7	278.5	277.2	274.1	271.9	274.9	253.2	
Electrical machinery	1,245.7	1,220.6	1,222.0	1,211.2	1,216.2	1,223.2	1,232.0	1,236.2	1,250.7	1,260.9	1,251.2	1,228.8	1,215.1	1,202.9	1,123.6
Electrical generating, transmission, distribution, and industrial apparatus	413.3	417.6	419.6	424.1	428.6	430.1	433.0	432.3	432.0	432.0	428.5	425.5	415.9	383.4	
Electrical appliances	48.0	47.4	48.1	50.4	51.5	52.6	52.4	53.2	53.6	54.0	54.3	53.8	52.6	46.4	
Insulated wire and cable	26.1	26.2	26.0	26.2	26.8	27.0	27.5	27.6	27.1	27.0	26.4	25.8	26.1	22.8	
Electrical equipment for vehicles	72.6	73.6	71.8	75.3	73.1	79.4	79.6	78.6	77.2	74.1	70.3	67.6	73.9	80.3	
Electric lamps	28.4	28.3	28.4	28.5	28.4	28.6	28.6	28.4	28.5	28.6	28.3	28.0	27.1	26.6	
Communication equipment	581.8	578.6	568.0	562.4	564.9	565.5	566.1	579.7	592.1	585.2	570.0	563.8	557.7	515.7	
Miscellaneous electrical products	50.4	50.3	49.3	49.3	48.9	48.8	49.0	50.0	50.4	50.3	51.0	50.6	49.6	48.4	
Transportation equipment	1,871.0	1,866.1	1,925.9	1,941.4	1,950.8	1,980.1	1,984.7	1,977.3	1,971.0	1,929.0	1,718.9	1,746.0	1,830.5	1,832.1	
Motor vehicles and equipment*	759.5	793.9	812.7	823.4	853.1	863.6	872.7	876.4	856.1	787.7	684.9	722.0	815.2	903.8	
Aircraft and parts	902.9	905.6	906.9	909.1	906.8	904.8	891.5	884.6	870.7	853.4	841.2	827.5	814.4	740.5	
Aircraft	535.9	556.2	558.3	557.0	557.2	554.9	546.8	540.0	531.6	522.1	515.6	509.3	499.1	466.6	
Aircraft engines and parts	176.7	178.9	179.7	183.3	184.2	183.8	181.0	181.1	177.7	173.9	170.6	166.0	165.6	147.1	
Aircraft propellers and parts	21.0	20.6	20.4	20.6	20.4	20.1	19.7	19.6	19.0	18.5	18.0	17.1	16.9	13.8	
Other aircraft parts and equipment	150.6	149.9	148.5	148.2	148.6	146.0	144.0	143.9	142.4	138.9	137.0	135.1	132.8	113.0	
Ship and boat building and repairing	147.2	148.7	146.5	143.6	145.2	142.3	139.6	137.6	133.7	127.1	125.3	126.2	129.9	123.0	
Shipbuilding and repairing	130.2	129.9	127.1	124.0	125.5	122.7	120.7	119.5	115.1	110.6	109.1	110.5	110.0	101.0	
Boatbuilding and repairing	17.0	18.8	19.4	19.6	19.7	19.6	18.9	18.1	17.2	16.5	16.2	15.7	18.9	22.0	
Railroad equipment	67.5	67.7	65.6	65.3	64.0	65.0	65.2	63.6	58.4	58.8	66.4	59.5	62.1	55.8	
Other transportation equipment	9.6	10.0	9.7	9.4	9.2	9.0	8.3	8.8	10.6	11.0	11.1	10.8	9.9	9.0	
Instruments and related products	338.4	335.2	338.0	339.0	342.3	342.2	341.2	341.7	343.4	343.4	342.4	340.8	338.6	335.9	321.0
Laboratory, scientific, and engineering instruments	75.5	75.1	74.8	75.6	73.9	73.8	72.7	72.2	71.9	71.6	70.1	68.9	67.3	57.6	
Mechanical measuring and controlling instruments	84.5	85.4	85.5	86.4	87.3	86.3	87.5	88.2	88.1	87.2	85.9	85.3	85.5	82.4	
Optical instruments and lenses	13.8	13.8	13.7	14.0	14.1	14.1	14.0	14.1	14.0	13.9	14.0	13.6	13.9	13.8	
Surgical, medical, and dental instruments	41.7	42.2	42.2	42.3	42.0	42.0	41.7	41.5	41.3	40.8	40.8	41.0	41.1	39.9	
Ophthalmic goods	23.5	24.0	24.0	24.2	24.5	24.7	24.7	24.9	24.9	25.2	25.4	25.6	25.7	25.2	
Photographic apparatus	70.0	69.4	68.5	68.6	68.8	69.0	69.2	69.3	69.3	69.1	69.6	70.2	68.1	65.7	
Watches and clocks	26.2	28.1	30.3	31.2	31.6	31.3	31.9	33.2	33.9	34.6	34.8	33.9	34.4	36.4	
Miscellaneous manufacturing industries	483.8	467.3	485.0	480.6	480.1	479.4	477.6	475.5	498.5	516.7	525.3	515.9	505.0	499.3	485.2
Jewelry, silverware, and plated ware	45.9	47.2	47.2	47.7	48.8	50.1	50.3	51.6	52.0	52.5	51.5	50.1	50.8	52.3	
Musical instruments and parts	15.5	16.9	17.7	17.5	17.8	18.0	18.1	18.9	18.9	18.8	18.5	18.2	18.3	17.7	
Toys and sporting goods	83.6	88.9	88.2	84.9	80.8	79.1	76.1	85.0	97.3	104.1	103.0	100.0	93.2	86.9	
Pens, pencils, other office supplies	31.5	31.9	31.1	31.0	30.7	30.7	31.4	32.3	33.0	33.3	32.9	32.6	31.9	30.7	
Costume jewelry, buttons, notions	57.9	59.5	58.1	59.0	60.3	60.4	60.8	62.2	64.1	65.9	65.6	65.1	64.8	64.9	
Fabricated plastics products	86.0	88.8	88.0	87.9	89.9	89.6	89.6	90.7	91.4	90.6	87.8	84.7	86.5	81.5	
Other manufacturing industries	146.9	151.8	150.9	152.3	151.1	149.7	149.2	157.8	160.0	160.1	156.6	154.3	154.8	151.2	

See footnotes at end of table.

TABLE A-2. Employees in nonagricultural establishments, by industry¹—Continued

[In thousands]

Industry	1957											1956				Annual average		
	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	1956	1955			
Transportation and public utilities	4,223	4,202	4,181	4,156	4,153	4,147	4,120	4,126	4,194	4,184	4,189	4,191	4,190	4,157	4,042			
Transportation	2,785	2,766	2,762	2,749	2,747	2,746	2,723	2,733	2,797	2,785	2,783	2,783	2,786	2,768	2,727			
Interstate railroads		1,139,9	1,144,5	1,137,1	1,136,0	1,132,2	1,132,5	1,139,0	1,172,5	1,174,1	1,188,1	1,188,6	1,184,4	1,190,5	1,205,3			
Class I railroads		1,007,7	1,011,9	1,004,4	992,4	988,0	988,7	996,1	1,016,0	1,027,1	1,041,1	1,040,8	1,036,9	1,042,6	1,057,2			
Local railways and busines		107,7	108,0	108,4	108,6	108,6	108,2	108,6	108,6	108,6	109,0	109,8	110,1	110,6	116,1			
Trucking and warehousing	833,8	829,2	821,0	821,1	820,2	819,3	817,0	842,8	838,6	832,6	820,1	809,9	807,5	804,7	764,9			
Other transportation and services		684,3	679,8	682,6	681,4	682,3	682,3	692,9	663,2	661,8	664,5	665,5	658,8	660,7				
Busines, except local		45,5	45,1	44,0	43,2	42,6	42,3	42,5	41,8	42,0	42,5	43,0	43,6	42,4	45,6			
Air transportation (common carrier)		147,2	146,1	145,2	144,7	143,1	141,8	141,2	137,9	136,3	135,2	134,5	134,4	130,5	114,3			
Communication	821	813	810	809	808	803	799	802	801	806	813	806	813	795	750			
Telephone		778,8	770,0	767,1	766,3	763,8	760,9	756,9	759,4	760,1	757,9	762,1	769,7	751,2	706,7			
Telegaph		41,9	41,9	41,9	41,9	41,1	41,7	41,8	41,4	42,1	42,4	42,6	42,8	42,6	42,3			
Other public utilities	617	615	606	597	597	595	594	593	595	596	602	603	594	595				
Gas and electric utilities		589,9	581,5	573,3	572,5	570,7	569,9	579,6	571,0	571,8	572,1	578,2	583,5	570,1	562,1			
Electric light and power utilities		256,6	253,0	249,3	248,8	247,9	247,1	246,6	247,2	247,3	247,4	251,2	253,6	247,8	248,7			
Gas utilities		147,4	146,1	143,7	143,6	143,1	143,4	143,8	144,5	145,2	145,4	146,5	148,0	144,2	140,8			
Electric light and gas utilities combined		185,9	182,4	180,3	180,1	179,7	179,4	179,2	179,3	179,3	179,3	180,5	181,9	178,1	172,6			
Local utilities, not elsewhere classified		24,8	24,4	23,9	24,0	24,0	23,6	23,6	23,8	23,8	24,0	24,1	24,7	23,9	23,0			
Wholesale and retail trade	11,505	11,510	11,411	11,428	11,265	11,225	11,298	12,260	11,657	11,445	11,319	11,198	11,292	10,548				
Wholesale trade	3,173	3,166	3,140	3,113	3,114	3,117	3,114	3,106	3,149	3,119	3,090	3,068	3,032	2,873				
Wholesalers, full-service and limited function		1,824,8	1,807,9	1,795,8	1,796,3	1,800,9	1,800,6	1,803,2	1,837,5	1,811,2	1,795,7	1,784,3	1,780,2	1,767,5	1,679,4			
Automotive		125,2	123,7	121,6	121,6	120,3	119,8	119,5	119,5	119,1	119,5	119,1	119,5	120,5	118,8	113,4		
Groceries, food specialties, beer, wines, and liquors		321,3	319,3	315,2	318,4	316,3	317,8	316,4	322,3	318,1	313,4	312,3	310,7	308,4	298,4			
Electrical goods, machinery, hardware, and plumbing equipment		466,6	464,4	460,9	461,4	462,8	462,7	462,4	464,8	464,1	461,5	462,3	463,4	456,9	432,3			
Other full-service and limited-function wholesalers		911,7	900,5	898,1	894,9	896,6	900,3	904,9	930,9	909,9	901,3	889,2	884,6	881,6	835,4			
Wholesale distributors, other		1,340,8	1,332,0	1,317,3	1,317,6	1,315,9	1,313,6	1,302,7	1,311,8	1,307,6	1,294,0	1,283,3	1,283,6	1,264,9	1,193,9			
Retail trade	8,332	8,344	8,365	8,298	8,314	8,148	8,111	8,192	9,111	8,538	8,355	8,251	8,134	8,200	7,973			
General merchandise stores		1,355,8	1,354,6	1,379,8	1,382,2	1,401,9	1,383,0	1,333,2	1,387,7	1,900,6	1,600,2	1,475,9	1,421,5	1,344,4	1,450,7	1,430,9		
Department stores and general mail-order houses		877,3	888,4	885,0	880,5	862,0	859,0	869,4	1,266,8	1,049,1	955,0	917,3	878,5	938,8	912,7			
Other general merchandise stores		477,3	491,4	497,2	511,4	481,0	474,0	488,3	702,8	581,2	520,9	504,2	467,9	511,9	518,2			
Food and liquor stores		1,600,6	1,605,1	1,606,9	1,600,7	1,602,6	1,598,8	1,588,1	1,575,2	1,612,2	1,587,9	1,667,5	1,549,4	1,541,5	1,553,6	1,486,4		
Grocery, meat, and vegetable markets		1,126,8	1,127,6	1,126,2	1,124,1	1,123,5	1,118,5	1,113,3	1,137,0	1,119,0	1,102,1	1,082,8	1,070,1	1,086,4	1,034,2			
Dairy product stores and dealers		244,8	241,9	237,3	234,0	230,3	227,3	226,7	227,4	228,8	229,5	236,4	241,8	231,9	226,6			
Other food and liquor stores		233,9	237,4	232,2	243,9	237,0	241,0	235,2	247,8	240,1	235,9	230,2	229,6	235,3	226,6			
Automotive and accessories dealers		807,3	808,3	806,3	798,2	795,8	796,0	793,2	794,1	816,6	804,1	795,5	797,1	804,6	808,7	803,0		
Apparel and accessories stores		570,3	582,8	619,6	621,7	592,4	581,2	608,2	758,5	655,8	633,4	610,5	563,2	616,0	596,8			
Other retail trade		3,997,6	3,962,9	3,955,3	3,885,5	3,856,5	3,826,5	3,816,2	3,827,1	3,954,2	3,889,5	3,883,1	3,872,0	3,880,1	3,831,0	3,655,9		
Furniture and appliance stores		362,3	362,8	362,2	365,7	365,3	369,1	394,2	415,7	402,8	397,1	393,9	391,9	395,8	384,7			
Drug stores		376,0	372,4	360,9	364,2	354,7	352,2	360,1	378,7	354,9	354,7	346,5	345,2	345,6	328,5			
Finance, insurance, and real estate	2,393	2,359	2,329	2,320	2,310	2,301	2,293	2,308	2,314	2,315	2,325	2,341	2,306	2,219				
Banks and trust companies		625,9	614,4	606,7	605,9	602,3	595,6	597,2	594,9	590,4	588,1	590,6	581,9	549,3				
Security dealers and exchanges		85,2	83,8	82,8	83,0	82,6	82,7	82,6	83,0	82,9	82,7	82,8	84,4	82,4	77,6			
Insurance carriers and agents		896,2	853,1	845,8	845,4	842,5	837,0	830,3	829,9	828,5	826,0	826,2	834,6	821,7	795,4			
Other finance agencies and real estate		814,2	807,8	793,4	784,3	779,1	779,1	783,1	797,6	807,9	815,7	828,0	844,1	820,1	798,6			
Service and miscellaneous	6,506	6,524	6,551	6,529	6,432	6,317	6,273	6,239	6,295	6,327	6,343	6,322	6,293	6,231	5,916			
Hotels and lodging places		601,4	593,7	592,6	595,9	492,3	480,7	480,6	482,0	488,2	484,8	534,5	509,0	518,0	488,7			
Personal services		338,0	336,5	333,5	328,5	328,2	328,0	329,6	330,2	331,7	332,9	333,7	336,6	333,5	332,1			
Laundries		163,0	167,6	168,0	164,0	160,3	158,9	160,6	162,9	163,8	165,7	164,3	160,7	164,8	163,4			
Cleaning and dyeing plants		228,6	226,8	227,0	224,1	216,5	212,3	211,6	214,8	220,2	228,8	234,3	234,5	226,6	227,6			
Motion pictures																		
Government	7,109	7,138	7,343	7,387	7,376	7,360	7,334	7,302	7,589	7,334	7,290	7,293	6,981	7,178	6,914			
Federal ¹		2,227	2,219	2,211	2,202	2,205	2,203	2,200	2,196	2,483	2,201	2,202	2,198	2,208	2,206	2,187		
State and local ²		4,882	4,919	5,132	5,185	5,171	5,157	5,134	5,106	5,106	5,133	5,088	5,007	4,773	4,959	4,727		

¹ Beginning with the July 1957 issue, the data for 1955-56 shown in this table are not comparable with those published in previous issues. They have been revised because of adjustment to first quarter 1956 benchmark levels indicated by data from government social insurance programs. Comparable data for earlier years are available upon request. Data for 1956 and 1957 are subject to revision when new benchmarks become available.

These series are based on establishment reports which cover all full- and part-time employees in nonagricultural establishments who worked during, or received pay for, any part of the pay period ending nearest the 15th of the month. Therefore, persons who worked in more than one establishment during the reporting period are counted more than once. Proprietors, self-employed persons, unpaid family workers, and domestic servants are excluded.

² Preliminary; subject to revision without notation.

³ Durable goods include: Ordnance and accessories; lumber and wood products (except furniture); furniture and fixtures; stone, clay, and glass products; primary metal industries; fabricated metal products (except ordnance, machinery, and transportation equipment); machinery (except electrical); electrical machinery; transportation equipment; instruments and related products; and miscellaneous manufacturing industries.

⁴ Nondurable goods include: Food and kindred products; tobacco manufactures; textile-mill products; apparel and other finished textile products; paper and allied products; printing, publishing, and allied industries; chemicals and allied products; products of petroleum and coal; rubber products; and leather and leather products.

⁵ Data for Federal establishments refer to the continental United States; they relate to civilian employees who worked on, or received pay for, the last day of the month.

⁶ State and local government data exclude, as nominal employees, elected officials of small local units and paid volunteer firemen.

⁷ NOTE: For a description of these series, see Techniques of Preparing Major BLS Statistical Series, BLS Bull., 1168 (1954).

⁸ Formerly titled "Automobiles." Data not affected.

SOURCE: U. S. Department of Labor, Bureau of Labor Statistics for all series except that for the Federal Government, which is prepared by the U. S. Civil Service Commission, and that for Class I railroads, which is prepared by the U. S. Interstate Commerce Commission.

TABLE A-3. Production workers in mining and manufacturing industries¹

[In thousands]

Industry	1957							1956							Annual average	
	Aug. ²	July ²	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	1956	1955	
Mining																
Metal	700	704	686	685	686	689	689	696	696	696	699	699	680	680	651	
Iron	96.6	95.5	95.7	94.2	93.9	94.5	94.6	95.2	95.7	95.9	97.1	94.0	92.5	86.6		
Copper	34.4	34.2	33.8	31.5	30.3	30.6	30.8	31.5	32.2	33.4	34.1	31.8	30.0	29.7		
Lead and zinc	27.5	28.1	27.7	28.1	28.6	28.6	28.5	28.5	28.7	28.4	28.6	28.5	28.3	24.4		
Anthracite	28.9	28.3	24.7	26.6	28.4	28.9	28.9	29.4	28.2	27.7	27.2	27.4	27.1	28.3		
Bituminous coal	207.6	218.9	216.7	217.4	218.4	221.8	221.4	222.0	220.5	220.3	219.5	216.0	210.8	200.5		
Crude-petroleum and natural-gas production	265.2	260.6	248.5	248.8	249.7	250.5	249.4	250.7	250.2	248.6	251.7	258.0	249.8	243.1		
Petroleum and natural-gas production (except contract services)	138.6	136.3	129.5	130.1	130.1	131.0	130.3	129.0	128.8	128.8	132.1	136.1	130.7	129.4		
Nonmetallic mining and quarrying	101.5	100.9	100.8	98.0	95.2	93.4	95.0	99.0	101.8	103.0	103.0	103.8	103.8	99.5	92.7	
Manufacturing	13,031	12,783	12,955	12,894	12,960	13,055	13,114	13,150	13,350	13,392	13,465	13,345	13,256	13,196	13,061	
Durable goods ³	7,481	7,427	7,603	7,600	7,635	7,693	7,721	7,740	7,827	7,839	7,788	7,616	7,572	7,650	7,551	
Nondurable goods ⁴	5,556	5,352	5,294	5,325	5,392	5,363	5,410	5,523	5,553	5,677	5,729	5,684	5,537	5,510		
Ordnance and accessories	72.3	72.8	75.8	76.5	78.3	78.0	79.4	80.6	82.5	81.8	81.6	81.6	79.6	83.0	93.8	
Food and kindred products	1,190.2	1,113.9	1,056.4	1,004.2	989.8	988.8	987.1	1,014.9	1,075.6	1,125.2	1,209.3	1,281.6	1,246.4	1,105.3	997.3	
Meat products	260.2	257.9	253.2	252.7	253.3	257.6	269.9	282.9	283.8	279.2	274.2	272.2	269.1	255.9		
Dairy products	77.3	76.0	71.5	65.5	66.8	65.3	67.2	67.9	69.4	71.1	74.7	78.8	77.7	74.9		
Canning and preserving	212.1	164.3	136.2	135.1	127.2	128.6	134.3	152.0	184.6	268.3	358.6	325.0	199.6	196.3		
Grain-mill products	79.7	77.5	78.4	78.7	80.5	80.7	81.4	81.9	81.8	85.0	85.7	86.4	83.7	87.1		
Bakery products	173.8	171.6	169.4	168.4	168.2	168.5	168.3	172.5	174.7	175.7	173.4	174.0	172.1	172.1		
Sugar	22.8	22.0	19.8	20.3	20.2	20.9	25.3	37.3	40.9	38.9	24.6	21.8	26.5	27.0		
Confectionery and related products	58.4	59.9	59.6	61.3	62.8	64.5	66.4	71.0	71.7	72.2	69.1	63.7	64.8	65.5		
Beverages	130.1	127.1	120.9	113.0	114.8	109.2	111.0	117.9	124.2	123.8	125.3	126.9	120.8	119.9		
Miscellaneous food products	99.3	100.1	95.2	91.8	93.0	91.8	91.1	92.2	94.1	95.1	96.0	97.6	96.0	98.6		
Tobacco manufactures	93.9	70.7	73.2	72.8	73.6	76.5	83.7	88.1	93.0	95.7	103.5	106.2	97.7	88.7	93.8	
Cigarettes	29.6	29.8	29.3	29.3	29.3	29.8	30.4	30.7	30.9	30.7	31.0	31.2	30.7	30.0		
Cigars	28.3	30.9	31.2	31.7	31.6	32.0	31.2	32.7	33.0	32.4	32.2	31.8	32.8	36.3		
Tobacco and snuff	5.3	5.6	5.6	5.7	5.6	5.6	5.7	5.7	5.7	5.7	5.9	5.9	5.9	6.3		
Tobacco stemming and redrying	7.5	6.9	6.7	6.9	10.0	16.3	20.8	23.9	26.1	34.7	37.1	28.8	19.3	21.2		
Textile-mill products	913.8	895.1	912.9	911.2	912.9	928.5	932.7	934.6	947.8	955.4	957.9	955.9	958.2	955.7	983.7	
Scouring and combing plants	5.7	6.2	5.9	5.5	5.8	6.1	6.2	6.3	6.2	6.2	6.2	6.3	6.5	6.3	6.0	
Yarn and thread mills	105.7	108.7	109.2	109.5	110.6	111.5	111.6	112.6	112.4	111.6	111.8	111.8	111.9	120.4		
Broad-woven fabric mills	304.8	401.4	401.9	407.1	410.4	414.5	417.6	421.2	422.9	423.8	423.9	427.1	430.0	439.6		
Narrow fabrics and small wares	24.7	25.4	25.6	25.8	26.0	26.2	26.0	25.6	26.3	26.3	26.2	25.8	26.2	26.6		
Knitting mills	191.4	196.7	193.2	191.5	192.7	192.7	188.7	195.2	201.5	204.8	203.0	203.6	200.7	201.0		
Dyeing and finishing textiles	75.1	76.7	76.5	77.4	77.5	77.8	78.2	79.2	79.5	79.2	78.4	78.4	80.1	79.7		
Carpets, rugs, other floor coverings	40.3	40.2	41.9	43.7	45.3	46.2	45.2	45.1	44.7	45.0	44.9	42.8	45.6	44.8		
Hats (except cloth and millinery)	9.0	9.4	8.8	9.6	10.1	10.1	9.7	10.5	10.3	9.8	10.4	10.2	10.8	11.6		
Miscellaneous textile goods	46.9	48.2	48.2	49.3	50.1	50.8	51.4	52.1	51.6	51.2	50.6	50.0	52.0	54.9		
Apparel and other finished textile products	1,079.7	1,025.0	1,044.7	1,039.0	1,068.9	1,098.1	1,094.5	1,075.5	1,092.8	1,102.1	1,096.4	1,085.2	1,089.0	1,083.3	1,077.1	
Men's and boys' suits and coats	105.1	110.0	108.1	110.0	112.2	112.5	112.3	112.6	112.6	112.7	113.5	111.8	107.7			
Men's and boys' furnishings and work clothing	276.5	282.2	278.3	280.6	282.8	282.1	277.0	278.9	284.6	291.3	290.6	293.0	289.5	285.6		
Women's outerwear	289.5	295.8	296.9	316.5	331.9	331.2	327.8	329.7	318.1	312.3	310.2	318.6	316.0	317.5		
Women's children's undergarments	103.2	106.0	107.9	110.5	111.9	111.0	107.5	108.9	111.9	111.4	110.1	108.6	108.9	107.1		
Millinery	14.4	11.9	13.1	18.1	20.0	19.5	16.5	16.4	14.5	17.1	16.8	16.6	16.4	17.9		
Children's outerwear	70.0	70.6	66.8	63.7	67.8	69.8	67.4	66.7	66.8	69.0	67.9	67.1	66.9	65.9		
Fur goods	9.1	9.4	8.9	7.0	7.2	7.0	7.3	9.8	9.8	10.2	9.6	9.3	8.6	9.3		
Miscellaneous apparel and accessories	54.5	55.2	54.0	54.9	56.3	54.7	53.6	56.7	58.5	58.8	59.2	59.0	57.0	54.9		
Other fabricated textile products	102.7	103.6	103.0	107.6	108.0	106.7	106.1	112.5	115.3	112.6	107.3	103.3	108.2	111.2		
Lumber and wood products (except furniture)	644.3	644.6	658.9	638.0	611.8	592.6	589.0	594.3	627.8	654.9	683.5	699.7	718.1	672.2	679.2	
Logging camps and contractors	93.3	103.5	92.6	76.3	68.3	64.8	64.5	81.6	95.2	107.7	112.8	120.6	96.6	96.3		
Sawmills and planing mills	343.3	345.3	337.6	329.2	318.9	318.0	322.9	335.9	346.8	358.4	366.0	374.4	358.0	364.5		
Millwork, plywood, and prefabricated structural wood products	112.1	111.5	108.8	107.1	106.5	106.1	107.0	109.1	111.0	114.3	118.1	120.3	115.0	118.3		
Wooden containers	45.9	48.2	48.2	47.9	47.8	48.3	49.0	49.3	49.3	49.3	50.5	50.0	50.1	50.6	51.0	
Miscellaneous wood products	50.0	50.6	50.8	51.3	51.1	50.9	51.9	52.6	52.6	52.8	52.7	52.0	49.1			
Furniture and fixtures	314.9	308.2	311.0	307.5	311.5	312.3	312.8	312.4	319.6	320.0	324.6	323.6	318.2	318.5	310.8	
Household furniture	222.6	225.0	222.5	226.9	226.6	226.5	225.4	231.1	232.0	234.6	233.0	227.9	230.4	225.3		
Office public-building, and professional furniture	37.3	37.8	37.5	38.0	38.0	38.5	37.9	38.9	38.9	39.5	39.8	40.1	38.9	35.7		
Partitions, shelving, lockers, and fixtures	29.1	28.9	28.6	27.9	28.1	28.0	28.7	29.0	28.2	29.6	30.0	29.8	28.6	29.1		
Screens, blinds, and miscellaneous furniture and fixtures	19.2	19.3	18.9	18.7	19.6	19.8	20.4	20.6	20.9	20.9	20.8	20.4	20.6	20.7		

See footnotes at end of table.

TABLE A-3. Production workers in mining and manufacturing industries¹—Continued

[In thousands]

Industry	1957							1956						Annual average	
	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	1956	1955
Manufacturing—Continued															
Paper and allied products.....	465.6	459.2	468.9	464.9	467.1	466.5	465.5	467.8	472.2	469.9	470.2	471.8	470.4	465.2	452.5
Pulp, paper, and paperboard mills.....	226.3	232.8	230.0	231.6	231.1	231.5	232.0	233.9	230.6	231.0	233.1	234.2	230.4	227.4	
Paperboard containers and boxes.....	125.8	120.9	126.7	126.5	126.5	126.1	127.8	130.7	132.6	131.9	130.6	129.1	128.0	121.7	
Other paper and allied products.....	107.1	108.1	108.2	109.4	108.9	108.0	108.9	107.7	107.3	107.7	107.3	108.1	107.1	106.8	103.4
Printing, publishing and allied industries															
Newspapers.....	551.5	552.8	556.0	554.9	556.2	558.7	555.3	557.1	565.9	563.7	563.4	556.9	550.2	551.1	529.1
Periodicals.....	157.1	159.3	159.3	158.1	158.5	157.8	157.4	160.8	158.7	158.9	157.4	155.4	156.0	150.4	
Books.....	23.9	24.2	24.9	25.4	25.6	25.5	25.5	27.5	28.0	28.1	27.7	26.9	27.7	26.7	
Commercial printing.....	34.0	34.1	34.2	34.8	34.8	34.8	34.8	34.8	34.5	34.0	33.6	33.1	33.1	31.0	
Lithography.....	184.9	184.1	183.4	181.2	181.1	182.2	183.0	183.1	184.1	183.9	181.1	180.6	180.6	178.8	
Greeting cards.....	46.9	47.4	47.1	47.9	47.2	47.3	46.9	47.2	48.2	48.5	48.2	47.5	47.6	46.9	
Bookbinding and related industries.....	12.3	12.6	11.6	11.5	11.2	11.2	11.9	13.3	14.3	14.8	14.6	14.2	13.6	13.9	
Miscellaneous publishing and printing services.....	36.4	37.1	36.9	37.4	37.2	37.2	37.6	37.8	37.5	38.0	38.1	37.4	37.2	34.3	
	57.3	57.2	57.5	56.7	59.3	56.6	58.7	58.1	57.9	57.4	55.6	55.1	55.3	52.1	
Chemicals and allied products															
Industrial inorganic chemicals.....	533.0	530.8	534.7	544.3	549.1	550.0	547.9	548.5	547.4	548.5	549.8	548.1	545.1	551.6	546.0
Industrial organic chemicals.....	71.9	73.0	73.2	73.2	73.5	73.6	73.8	73.7	74.1	74.6	75.3	74.6	75.0	74.1	
Drugs and medicines.....	205.1	205.8	206.7	205.4	210.7	212.1	214.4	213.5	212.0	212.2	212.9	215.3	215.6	215.0	
Soap, cleaning and polishing preparations.....	59.7	59.2	58.8	58.7	58.8	58.8	59.1	58.6	58.7	58.3	58.7	58.5	57.8	56.6	
Paints, pigments, and fillers.....	31.1	30.7	30.4	30.7	30.9	31.0	30.6	30.4	30.5	30.5	30.5	30.8	31.1	30.4	30.1
Gum and wood chemicals.....	48.6	47.7	47.5	47.2	46.9	47.2	47.3	47.1	47.1	47.1	47.4	48.0	47.3	46.6	
Fertilizers.....	7.4	7.2	7.3	7.4	7.4	7.3	7.2	7.1	7.1	7.1	7.1	7.1	7.1	6.8	
Vegetable and animal oils and fats.....	21.6	24.4	33.3	32.8	33.1	27.8	25.7	24.6	23.4	25.1	23.4	21.6	27.3	27.8	
Miscellaneous chemicals.....	61.3	62.3	62.2	61.8	61.2	61.4	61.5	62.6	62.8	63.9	63.2	63.1	62.8	60.3	
Products of petroleum and coal.....	176.6	176.6	175.3	174.0	173.4	172.8	173.4	171.8	174.3	175.9	176.2	177.2	178.8	173.8	173.8
Petroleum refining.....	135.2	133.3	132.9	132.7	132.0	132.3	132.8	133.1	133.9	133.2	133.9	135.8	132.2	132.2	
Coke, other petroleum and coal products.....	41.4	42.0	41.1	40.7	40.8	41.1	39.0	41.2	42.0	43.0	43.3	43.0	41.6	41.6	
Rubber products.....	204.2	199.9	196.8	204.2	191.3	211.4	212.6	216.0	215.8	194.4	214.5	209.9	205.5	211.1	214.7
Tires and inner tubes.....	84.4	82.7	84.9	91.1	86.9	86.8	87.4	87.3	70.1	86.0	86.0	84.4	85.2	88.6	
Rubber footwear.....	16.9	17.4	17.3	17.5	17.3	17.5	17.8	18.3	18.3	18.9	19.3	19.4	19.3	18.2	
Other rubber products.....	98.6	101.2	102.0	102.7	106.7	108.0	110.3	109.9	105.4	109.2	104.5	101.8	106.1	107.9	
Leather and leather products.....	341.6	331.7	332.7	324.8	333.6	340.8	340.1	335.5	337.8	335.2	335.8	336.5	344.6	340.8	342.0
Leather: tanned, curried, and finished.....	36.3	36.7	36.0	36.3	36.5	37.1	37.3	37.8	37.7	37.9	37.5	38.3	38.4	40.1	
Industrial leather belting and packing.....	3.8	3.9	3.9	4.0	4.0	4.0	4.0	4.0	3.9	3.8	3.9	3.8	4.0	3.8	
Boot and shoe cut stock and findings.....	17.8	17.9	17.6	17.7	18.2	18.2	18.3	18.1	18.3	18.0	17.5	17.2	17.7	18.0	16.3
Footwear (except rubber).....	218.7	219.0	213.8	218.9	223.4	221.8	221.9	219.5	215.2	213.6	215.7	222.3	221.5	223.6	
Luggage.....	14.3	14.4	14.1	14.0	14.1	14.1	13.4	13.8	14.0	14.1	14.2	14.9	14.2	14.4	
Handbags and small leather goods.....	25.5	25.8	24.7	28.1	29.8	30.8	28.9	29.8	31.0	33.0	32.0	31.7	29.7	29.4	
Gloves and miscellaneous leather goods.....	15.3	15.1	14.7	14.6	14.8	14.1	12.6	14.6	15.4	15.9	16.0	15.9	15.0	14.4	
Stone, clay, and glass products.....	459.8	442.7	459.3	456.2	455.2	451.4	449.0	453.3	464.5	470.4	475.6	469.4	474.6	469.6	460.6
Flat glass.....	26.9	27.1	27.4	28.3	28.9	30.0	30.9	31.3	31.4	31.1	30.7	30.5	30.6	30.1	
Glass and glassware, pressed or blown.....	79.7	80.3	81.7	80.5	79.6	78.4	79.1	80.1	82.6	83.1	76.6	80.4	80.4	79.6	
Glass products made of purchased glass.....	13.7	13.8	13.8	14.0	14.1	14.2	14.5	15.1	15.1	15.0	14.6	14.2	14.8	14.9	
Cement, hydraulic.....	23.7	34.6	35.7	35.3	35.5	35.4	35.7	36.6	36.6	36.8	37.1	37.5	36.5	35.8	
Structural clay products.....	73.5	73.3	70.8	70.5	68.9	68.1	70.4	72.9	74.7	77.2	78.4	78.8	77.0	73.7	
Pottery and related products.....	43.0	44.5	45.3	46.7	47.2	47.8	47.3	48.4	48.6	48.8	47.1	48.1	48.1	47.6	
Concrete, gypsum, and plaster products.....	98.9	99.1	97.3	94.8	92.5	90.7	91.0	93.8	96.1	97.8	99.2	100.2	96.3	91.7	
Cut-stone and stone products.....	16.5	16.4	16.7	16.8	16.5	16.4	16.4	16.7	16.9	16.9	17.0	16.8	17.0	17.4	
Miscellaneous nonmetallic mineral products.....	66.8	67.5	67.5	68.3	68.2	68.0	68.0	68.9	68.4	68.9	68.7	68.1	68.9	69.8	
Primary metal industries.....	1,070.0	1,074.1	1,092.5	1,092.6	1,101.0	1,112.0	1,123.7	1,132.7	1,135.4	1,134.1	1,133.5	1,128.0	1,091.0	1,096.0	1,084.8
Blast furnaces, steelworks, and rolling mills.....	541.2	546.6	546.4	548.9	553.7	558.7	559.0	562.5	564.3	565.9	569.5	549.7	532.9	544.8	
Iron and steel foundries.....	193.2	197.9	198.4	199.9	203.3	208.3	210.4	211.1	209.8	209.8	203.5	206.7	210.0	202.2	
Primary smelting and refining of nonferrous metals.....	52.2	53.5	53.9	54.7	54.6	54.5	56.5	56.5	56.0	55.8	56.6	51.5	54.2	51.1	
Secondary smelting and refining of nonferrous metals.....	10.5	10.5	10.7	10.8	10.8	10.8	10.8	10.9	11.0	11.0	10.7	10.7	10.7	9.8	
Rolling, drawing, and alloying of nonferrous metals.....	85.0	87.4	87.2	87.5	85.5	87.2	91.1	90.6	90.6	90.0	91.3	85.5	92.6	91.2	
Nonferrous foundries.....	61.9	63.2	63.3	65.6	68.0	68.3	69.7	69.3	69.1	68.6	65.7	63.2	65.8	64.4	
Miscellaneous primary metal industries.....	130.1	133.4	132.7	133.6	136.1	135.9	135.2	134.5	133.6	132.4	130.7	123.9	129.8	121.5	
Fabricated metal products (except ordnance, machinery, and transportation equipment).....	886.6	886.9	886.5	882.9	889.4	898.0	902.4	903.7	907.8	910.5	910.3	885.1	863.7	888.4	893.6
Tin cans and other tinware.....	52.4	51.0	49.3	50.2	48.3	47.5	46.8	46.2	46.3	51.2	54.4	52.4	50.5	51.0	
Cutlery, handtools, and hardware.....	106.8	111.4	113.4	114.9	118.5	121.2	123.2	124.1	122.9	119.6	115.1	111.6	120.3	126.5	
Heating apparatus (except electric) and plumbers' supplies.....	84.1	85.2	85.3	85.1	84.5	84.5	83.5	86.4	86.4	89.6	93.5	94.0	92.4	94.1	98.9
Fabricated structural metal products.....	247.8	249.7	243.4	239.5	239.6	237.6	235.5	235.8	235.8	236.8	235.1	232.2	226.1	209.0	
Metal stamping, coining, and engraving.....	182.5	187.8	189.1	193.9	199.6	202.6	205.2	206.0	206.5	202.4	185.9	178.6	193.9	203.5	
Lighting fixtures.....	39.9	40.2	40.6	41.4	42.0	42.7	42.7	43.2	42.9	42.9	42.8	39.7	38.7	40.7	41.7
Fabricated wire products.....	48.1	48.8	49.2	50.7	51.3	52.5	53.6	54.1	53.8	53.0	50.7	48.3	51.2	50.9	
Miscellaneous fabricated metal products.....	108.3	112.4	112.6	113.7	114.2	115.8	113.2	112.0	112.7	111.2	110.2	107.7	111.6	112.1	

See footnotes at end of table.

TABLE A-3. Production workers in mining and manufacturing industries¹—Continued

[In thousands]

Industry	1957							1956							Annual average	
	Aug. ²	July ²	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	1956	1955	
Manufacturing—Continued																
Machinery (except electrical)	1,192.0	1,206.1	1,238.6	1,255.4	1,277.3	1,291.1	1,294.4	1,287.4	1,277.2	1,262.3	1,254.6	1,254.4	1,249.9	1,267.9	1,178.6	
Engines and turbines	57.1	59.2	59.5	60.5	61.3	62.3	61.9	62.8	61.7	61.2	60.1	59.2	57.9	53.4	53.4	
Agricultural machinery and tractors	101.1	104.3	106.5	111.8	114.3	112.4	107.8	103.2	98.6	92.9	100.8	99.8	108.0	114.4	114.4	
Construction and mining machinery	108.0	109.1	110.8	112.5	112.6	114.4	112.6	112.4	110.7	112.1	112.2	112.3	111.1	96.2	96.2	
Metalworking machinery	214.4	220.2	222.6	224.3	225.7	224.4	223.5	222.5	220.5	218.8	217.9	217.9	215.2	217.2	200.9	
Special-industry machinery (except metalworking machinery)	124.1	127.9	128.0	128.4	129.7	130.2	132.0	132.5	132.8	132.4	133.4	133.0	133.5	127.0	127.0	
General industrial machinery	172.2	174.1	174.5	175.8	178.3	178.6	178.7	178.5	177.3	177.5	176.4	175.6	174.3	159.6	159.6	
Office and store machines and devices	92.4	97.2	98.5	99.8	100.2	101.2	100.5	98.6	97.9	96.7	91.8	94.5	94.2	85.4	85.4	
Service-industry and household machines	127.4	133.4	140.6	146.4	140.6	152.0	150.8	148.2	145.6	148.0	149.5	150.7	157.4	143.7	143.7	
Miscellaneous machinery parts	209.4	213.2	214.4	217.8	219.4	218.9	219.6	218.6	216.2	215.3	212.3	209.6	214.3	198.0	198.0	
Electrical machinery	871.3	850.1	854.9	847.3	853.0	869.4	876.7	884.4	900.1	912.9	908.4	886.3	872.8	871.3	822.0	
Electrical generating, transmission, distribution, and industrial apparatus	281.1	286.7	290.1	294.2	299.2	301.8	304.9	307.4	307.5	309.8	306.1	302.5	297.3	270.1	270.1	
Electrical appliances	36.1	35.6	36.6	38.7	39.9	41.1	41.1	41.6	42.0	42.7	43.2	42.6	41.8	37.3	37.3	
Insulated wire and cable	19.9	19.9	19.8	19.9	20.6	20.9	21.5	21.7	21.5	21.5	20.9	20.4	20.8	18.2	18.2	
Electrical equipment for vehicles	56.5	57.6	55.8	55.5	63.2	63.9	64.3	63.6	62.4	59.5	55.6	53.1	56.0	65.6	65.6	
Electric lamps	24.6	24.5	24.8	24.7	24.7	24.8	24.9	24.8	25.1	25.1	24.9	24.7	23.9	23.2	23.2	
Communication equipment	395.6	394.2	384.6	380.3	386.5	389.0	382.3	404.5	417.5	413.1	398.3	392.3	392.2	371.5	371.5	
Miscellaneous electrical products	36.3	36.4	35.6	35.7	35.3	35.2	35.4	36.5	36.9	36.7	37.3	37.2	36.5	36.5	36.1	
Transportation equipment	1,362.6	1,369.1	1,415.2	1,434.8	1,446.0	1,474.3	1,482.2	1,480.8	1,477.8	1,438.4	1,354.1	1,236.1	1,265.8	1,308.3	1,407.7	
Motor vehicles and equipment ⁴	597.1	632.4	651.9	663.0	689.2	699.8	708.7	711.6	693.7	627.6	524.8	562.0	651.8	746.4	746.4	
Aircraft and parts	586.0	593.9	598.3	601.6	603.1	602.6	595.2	588.2	579.2	564.0	554.0	543.1	540.8	506.6	506.6	
Aircraft	357.8	363.2	365.8	366.5	367.2	367.3	362.6	358.0	351.9	343.0	337.7	333.0	329.6	319.3	319.3	
Aircraft engines and parts	100.9	112.3	115.6	116.8	117.6	117.6	116.0	115.1	112.8	109.7	106.5	102.6	104.4	95.3	95.3	
Aircraft propellers and parts	14.4	14.2	13.9	14.1	13.9	13.6	13.3	13.2	12.8	12.4	12.0	11.3	11.3	9.4	9.4	
Other aircraft parts and equipment	103.9	104.2	104.4	104.2	104.1	104.1	103.3	102.9	101.7	98.9	97.8	96.2	95.3	82.6	82.6	
Ship and boat building and repairing	126.0	128.0	125.8	123.2	124.9	122.3	118.8	118.2	113.1	108.4	106.6	107.1	110.5	105.7	105.7	
Boatbuilding and repairing	111.7	111.9	109.1	108.3	107.8	105.4	103.8	102.6	98.5	94.4	92.9	94.0	94.1	86.6	86.6	
Railroad equipment	54.2	52.7	50.8	50.5	49.6	50.1	49.5	48.7	43.6	44.9	41.4	44.5	47.0	41.7	41.7	
Other transportation equipment	7.8	8.2	8.0	7.7	7.5	7.4	6.6	7.1	8.9	9.2	9.4	9.1	8.2	7.3	7.3	
Instruments and related products	223.5	221.0	224.0	226.1	229.5	230.6	230.2	231.4	233.3	234.6	234.4	232.6	230.7	230.3	223.8	
Laboratory, scientific, and engineering instruments	42.1	42.2	42.3	44.3	42.3	42.6	42.2	41.9	41.9	41.5	40.4	39.5	39.1	34.0	34.0	
Mechanical measuring and controlling instruments	57.8	58.3	58.5	58.5	60.6	59.5	61.0	61.6	61.9	61.6	60.1	59.3	59.9	58.5	58.5	
Optical instruments and lenses	10.2	10.2	10.2	10.4	10.5	10.6	10.5	10.5	10.5	10.5	10.6	10.4	10.6	10.6	10.6	
Surgical, medical, and dental instruments	28.6	29.0	29.1	29.4	29.3	29.2	28.9	28.8	28.8	28.8	28.5	28.6	28.5	27.6	27.6	
Ophthalmic goods	18.2	18.7	18.8	18.9	19.2	19.3	19.3	19.5	19.6	19.9	20.0	20.1	20.3	20.0	20.0	
Photographic apparatus	43.5	43.5	42.9	42.9	43.2	43.5	43.7	44.1	44.3	44.2	44.5	45.2	43.9	43.3	43.3	
Watches and clocks	20.6	22.1	24.3	25.1	25.5	25.5	25.8	26.9	27.6	28.2	28.4	27.6	29.8	29.8	29.8	
Miscellaneous manufacturing industries	383.5	368.6	386.1	382.7	382.3	382.0	380.7	379.0	401.0	418.8	427.2	418.8	407.9	403.5	395.9	
Jewelry, silverware, and plated ware	35.7	36.8	36.7	37.1	38.2	39.6	40.0	41.1	41.3	42.0	39.7	40.6	42.0	39.7	42.0	
Musical instruments and parts	12.7	14.0	14.3	14.4	14.9	15.1	15.2	16.0	16.1	15.9	15.7	15.8	15.5	15.1	15.1	
Toys and sporting goods	69.5	74.5	73.4	70.1	66.2	64.7	62.1	70.8	82.7	88.7	84.7	78.3	73.0	73.0	73.0	
Pens, pencils, other office supplies	23.6	24.0	23.2	23.2	23.1	23.0	24.1	24.0	24.7	25.0	24.8	24.3	23.8	22.8	22.8	
Costume jewelry, buttons, notions	46.1	47.6	46.6	47.5	48.5	48.5	48.9	50.1	51.6	53.3	53.1	52.7	51.7	53.9	53.9	
Fabricated plastics products	63.7	69.2	68.8	68.9	71.2	71.4	71.4	72.8	73.5	72.9	70.3	67.4	69.5	66.4	66.4	
Other manufacturing industries	115.3	120.0	119.7	121.1	119.9	118.4	118.3	126.2	128.9	129.4	125.9	123.6	124.1	122.7	122.7	

¹ For coverage of the series and comparability of data with those published in issues prior to July 1957, see footnote 1, table A-2.

Production and related workers include working foremen and all nonsupervisory workers (including leadmen and trainees) engaged in fabricating, processing, assembling, inspection, receiving, storage, handling, packing, warehousing, shipping, maintenance, repair, janitorial, watchman services, product development, auxiliary production for plant's own use (e.g., power

plant), and recordkeeping and other services closely associated with the aforementioned production operations.

² Preliminary; subject to revision without notation.

³ See footnote 3, table A-2.

⁴ See footnote 4, table A-2.

*Formerly titled "Automobiles." Data not affected.

SOURCE: U. S. Department of Labor, Bureau of Labor Statistics.

TABLE A-4. Indexes of production-worker employment and weekly payrolls in manufacturing¹

[1947-49=100]

Period	Employ- ment	Weekly payrolls	Period	Employ- ment	Weekly payrolls	Period	Employ- ment	Weekly payrolls
1939: Average	66.2	29.9	1950: Average	99.6	111.7	1956: November	108.3	108.2
1940: Average	71.2	34.0	1951: Average	106.4	129.8	December	107.9	171.4
1941: Average	87.9	49.3	1952: Average	106.3	136.6	1957: January	106.3	165.5
1942: Average	103.9	72.2	1953: Average	111.8	151.4	February	106.0	165.0
1943: Average	121.4	99.0	1954: Average	101.8	137.7	March	105.8	164.3
1944: Average	118.1	102.8	1955: Average	105.6	152.9	April	104.8	161.5
1945: Average	104.0	87.8	1956: Average	106.7	161.4	May	104.2	161.0
1946: Average	97.9	81.2				June	104.7	163.8
1947: Average	103.4	97.7	1956: August	107.2	161.5	July ²	103.3	160.4
1948: Average	102.8	105.1	September	107.9	166.7	August ²	105.4	
1949: Average	93.8	97.2	October	108.9	169.0			

¹ For coverage of the series and comparability of data with those published in issues prior to July 1957, see footnote 1, tables A-2 and A-3.

² Preliminary.

NOTE: For a description of these series, see Techniques of Preparing Major BLS Statistical Series, BLS Bull. 1168 (1954).

SOURCE: U. S. Department of Labor, Bureau of Labor Statistics.

TABLE A-5. Government civilian employment and Federal military personnel¹

[In thousands]

Item	1957							1956							Annual average	
	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	1956	1955	
Total civilian employment ²	7,138	7,343	7,361	7,351	7,335	7,324	7,302	7,389	7,334	7,290	7,203	6,981	6,966	7,178	6,914	
Federal employment	2,219	2,211	2,202	2,205	2,203	2,200	2,196	2,483	2,201	2,202	2,196	2,206	2,208	2,209	2,187	
Executive	2,191.9	2,184.2	2,175.8	2,178.6	2,176.5	2,173.3	2,170.1	2,456.2	2,174.7	2,175.9	2,169.1	2,181.1	2,182.0	2,183.1	2,161.7	
Department of Defense	1,023.3	1,023.0	1,021.1	1,023.2	1,028.7	1,031.7	1,033.5	1,034.8	1,037.5	1,041.0	1,038.8	1,046.5	1,046.2	1,034.1	1,027.9	
Post Office Department	521.4	518.7	522.3	521.8	521.9	520.4	519.1	805.3	518.9	514.0	511.4	509.8	510.1	535.3	530.0	
Other agencies	647.2	642.7	632.4	631.6	625.9	621.3	617.6	616.1	618.3	620.9	618.9	624.8	625.6	613.7	603.8	
Legislative	22.3	22.3	21.9	21.9	22.0	21.9	21.8	22.0	22.0	22.1	22.1	22.1	21.9	21.9	21.6	
Judicial	4.6	4.6	4.5	4.5	4.5	4.5	4.5	4.4	4.5	4.4	4.4	4.3	4.3	4.3	4.1	
District of Columbia ³	237.0	236.3	232.1	232.8	232.9	232.5	232.2	239.4	231.4	231.2	230.3	233.7	231.2	230.1	230.1	
Executive	215.9	215.2	211.3	212.0	212.0	211.6	211.4	218.5	210.4	210.1	209.2	211.9	212.8	210.3	209.6	
Department of Defense	88.3	88.2	87.0	87.3	87.4	87.5	88.0	88.0	88.1	88.3	88.2	89.7	90.1	88.6	89.3	
Post Office Department	8.8	8.9	8.9	9.0	8.9	8.9	8.9	16.8	8.8	8.7	8.6	8.6	8.6	9.3	9.3	
Other agencies	118.8	118.1	115.4	115.7	115.7	115.2	114.5	113.7	113.5	113.1	112.4	113.6	114.1	112.4	111.0	
Legislative	20.4	20.4	20.1	20.1	20.2	20.2	20.1	20.2	20.3	20.4	20.4	20.4	20.2	20.2	19.8	
Judicial	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	
State and local employment ⁴	4,919	5,132	5,159	5,146	5,132	5,134	5,106	5,133	5,088	5,007	4,773	4,758	4,969	4,727		
State	1,295.9	1,340.3	1,344.7	1,340.7	1,333.4	1,328.5	1,323.9	1,321.5	1,322.7	1,319.2	1,279.4	1,252.1	1,252.6	1,281.5	1,215.4	
Local	3,622.6	3,791.3	3,814.2	3,804.9	3,798.6	3,805.9	3,782.3	3,784.7	3,810.2	3,769.0	3,728.0	3,521.0	3,504.9	3,687.3	3,511.2	
Education	1,953.3	2,216.5	2,342.6	2,350.8	2,351.0	2,345.5	2,313.9	2,314.3	2,316.4	2,283.0	2,159.8	1,878.5	1,877.2	2,178.6	2,060.8	
Other	2,960.2	2,915.1	2,816.3	2,794.8	2,781.0	2,788.9	2,792.3	2,791.9	2,816.5	2,805.2	2,847.6	2,894.6	2,880.3	2,790.2	2,665.8	
Total military personnel ⁵	2,840	2,826	2,820	2,821	2,821	2,817	2,816	2,809	2,827	2,829	2,824	2,827	2,839	2,848	3,024	
Army	1,001.3	998.0	1,000.2	1,001.1	1,001.2	997.3	993.4	992.3	1,002.4	1,004.1	1,005.6	1,013.5	1,027.3	1,030.1	1,165.8	
Air Force	921.8	919.8	916.4	914.8	914.2	915.3	918.4	914.6	918.3	916.0	911.5	909.0	916.1	955.3		
Navy	685.0	677.1	675.9	678.0	678.3	676.4	676.0	673.1	675.0	677.7	678.9	675.1	673.6	672.7	668.8	
Marine Corps	201.4	200.9	197.4	197.7	198.1	198.9	199.6	200.8	202.1	202.8	201.5	200.9	200.5	200.4	203.9	
Coast Guard	30.5	29.9	29.7	29.5	29.3	29.1	29.0	28.6	28.8	28.8	28.7	28.7	28.7	28.8		

¹ For comparability of data with those published in issues prior to July 1957, see footnote 1, table A-2.

Data for Federal establishments relate to persons who worked on, or received pay for, the last day of the month. Those for State and local government relate to employees who worked during, or received pay for, any part of the pay period ending nearest the 15th of the month.

² Because of rounding, the sums of individual items may not equal totals.

³ Data refer to the continental United States only.

⁴ Includes all Federal civilian employment in Washington Standard Metropolitan Area (District of Columbia and adjacent Maryland and Virginia counties).

⁵ Excludes, as nominal employees, elected officials of small local units and paid volunteer firemen.

* Data refer to the continental United States and elsewhere.

SOURCE: Federal civilian employment, U. S. Civil Service Commission; State and local government employment, U. S. Department of Labor, Bureau of Labor Statistics; military personnel, U. S. Department of Defense, Office of the Secretary.

TABLE A-8. Insured unemployment under State programs and the program of unemployment compensation for Federal employees,¹ by geographic division and State

[In thousands]

Geographic division and State	1957												1956		Annual average	
	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	1956	1955	
Continental United States	1,284.6	1,251.2	1,349.7	1,475.4	1,592.5	1,730.3	1,737.4	1,285.0	1,013.4	878.4	988.3	1,058.6	1,209.5	1,225.2	1,269.4	
New England	110.1	98.3	113.7	122.9	125.4	136.1	145.9	109.3	80.7	66.0	64.8	69.1	83.0	86.7	100.9	
Maine	7.8	7.6	11.0	13.3	10.2	10.6	11.7	10.0	7.3	4.8	5.1	5.1	5.9	8.2	10.6	
New Hampshire	5.4	5.3	6.6	7.0	5.6	5.9	6.9	5.9	5.3	5.1	6.0	5.4	5.6	6.4	6.4	
Vermont	2.0	2.1	2.3	2.7	3.1	3.2	2.6	2.2	1.6	1.3	1.2	1.2	1.6	1.8	2.9	
Massachusetts	53.4	50.2	57.2	59.8	64.7	72.1	79.9	59.4	42.9	34.0	31.5	30.1	37.0	41.7	47.3	
Rhode Island	17.2	14.3	17.2	18.9	19.8	19.8	18.9	12.8	8.9	8.2	8.0	9.5	12.9	12.0	12.5	
Connecticut	24.2	18.8	19.5	22.2	24.5	25.9	19.0	14.7	12.7	13.0	17.8	20.1	16.5	21.1	21.1	
Middle Atlantic	405.2	390.3	411.6	429.4	441.6	481.6	511.9	377.9	292.7	259.5	284.0	308.8	376.8	370.8	403.5	
New York	183.1	183.8	190.5	191.7	195.2	217.8	231.5	176.3	125.6	102.0	114.4	117.2	161.7	165.4	185.5	
New Jersey	77.1	71.2	77.2	81.1	83.1	91.3	101.5	68.2	57.1	50.8	53.3	55.9	62.1	67.6	67.1	
Pennsylvania	145.1	135.3	143.9	156.5	163.3	172.6	178.9	133.4	110.0	106.7	116.3	135.7	150.0	137.8	150.9	
East North Central	248.7	232.3	254.8	272.3	283.8	304.2	308.5	228.3	193.0	195.4	274.0	277.7	288.9	257.5	221.1	
Ohio	52.6	54.0	55.3	62.4	65.8	70.7	69.1	51.4	38.4	30.7	35.2	43.4	48.8	47.5	48.9	
Indiana	28.0	28.7	31.8	33.7	33.7	41.6	43.8	29.3	24.4	23.0	29.5	32.7	36.0	31.3	23.7	
Illinois	63.1	70.5	67.0	68.1	74.9	79.6	85.3	56.0	51.4	45.8	53.9	58.5	65.6	59.6	78.3	
Michigan	87.1	81.2	84.1	84.8	82.7	82.8	80.4	67.8	58.9	53.8	142.7	128.0	121.1	100.6	51.8	
Wisconsin	17.8	17.8	19.3	23.3	26.7	29.5	30.0	23.9	19.8	12.2	12.6	15.1	17.4	19.0	18.4	
West North Central	51.1	58.8	69.6	96.0	110.8	126.6	120.0	83.6	60.0	46.6	47.6	49.2	51.8	71.9	75.9	
Minnesota	12.1	13.5	18.7	32.1	37.2	38.1	34.8	23.1	14.2	9.1	9.1	11.9	11.5	19.8	22.3	
Iowa	6.2	6.3	7.2	9.6	12.7	15.5	14.2	9.5	6.2	4.7	4.6	5.7	6.0	7.8	6.7	
Missouri	23.1	28.3	29.9	32.0	31.7	37.8	38.7	29.4	26.0	23.5	26.0	22.7	25.0	27.9	29.3	
North Dakota	4.4	5.0	1.0	3.4	5.6	6.0	5.4	3.4	1.5	.4	.2	3	4	2.2	2.7	
South Dakota	5.5	5.8	2.1	3.7	4.5	4.0	2.4	1.1	.5	.4	.5	.5	.5	1.6	1.5	
Nebraska	3.0	3.1	4.3	6.9	8.9	10.8	9.9	6.9	4.3	2.7	2.6	3.0	3.0	5.1	4.2	
Kansas	5.8	6.6	7.6	10.0	11.1	13.8	12.9	8.8	6.5	5.7	4.6	5.1	5.3	7.6	9.2	
South Atlantic	166.1	148.8	148.3	146.5	154.3	163.2	162.6	116.4	100.8	96.6	109.7	120.8	143.2	123.3	133.8	
Delaware	2.8	2.4	2.5	3.0	3.7	4.2	3.7	2.6	1.9	2.2	1.7	1.9	1.8	2.1	2.2	
Maryland	17.1	15.5	16.9	15.3	14.0	17.3	17.9	12.2	8.7	8.1	9.3	11.0	13.2	12.2	16.5	
District of Columbia	4.8	4.4	4.4	5.1	6.1	7.2	6.3	4.6	4.0	3.7	3.5	3.9	4.4	4.9	4.9	
Virginia	16.9	15.9	12.3	11.1	14.2	15.5	13.9	9.4	7.1	6.0	7.7	10.4	14.8	11.3	12.0	
West Virginia	13.1	12.1	12.2	11.1	12.7	13.9	15.7	10.3	8.3	7.8	9.1	11.7	13.3	11.0	17.3	
North Carolina	40.9	40.7	44.5	44.9	45.8	45.9	43.9	30.1	25.2	20.5	23.2	24.8	34.3	31.3	30.8	
South Carolina	16.7	14.8	14.6	14.9	15.3	15.3	16.8	12.7	12.4	12.1	13.8	12.4	14.1	13.0	11.5	
Georgia	29.8	26.8	26.8	26.5	27.2	27.6	30.1	21.6	19.1	18.1	19.5	21.5	26.9	21.9	21.1	
Florida	24.1	16.3	14.0	13.0	14.1	14.5	15.1	13.0	14.1	18.1	21.9	23.2	21.0	16.0	16.6	
East South Central	102.7	101.8	100.2	119.8	125.7	133.3	127.0	97.7	85.8	75.5	76.9	92.7	108.8	98.5	95.9	
Kentucky	30.8	31.9	34.5	37.4	38.5	40.4	35.6	29.6	27.3	26.0	26.1	29.1	30.2	30.1	31.0	
Tennessee	38.6	37.3	38.6	43.5	45.0	49.7	50.4	36.4	32.1	28.3	28.2	32.8	38.4	36.1	35.6	
Alabama	19.7	18.9	20.5	22.1	23.8	24.1	22.6	17.5	15.6	12.8	14.2	20.5	28.4	20.8	17.9	
Mississippi	13.7	13.7	15.5	16.9	18.4	19.1	18.4	14.1	10.8	8.4	8.4	10.3	11.7	11.5	11.3	
West South Central	58.5	62.5	72.6	81.5	85.7	94.2	86.5	65.3	51.7	42.5	42.9	48.1	50.5	57.9	63.6	
Arkansas	11.0	11.4	14.3	19.3	20.3	21.6	15.0	10.6	7.6	7.1	8.8	9.3	11.6	11.8	11.8	
Louisiana	11.8	12.3	14.2	15.9	16.7	17.8	16.5	11.2	8.8	7.5	8.6	9.9	11.5	12.4	16.4	
Oklahoma	9.8	11.4	13.1	14.0	14.9	17.4	15.8	12.3	9.8	8.1	7.8	8.4	8.7	10.5	11.3	
Texas	25.9	27.4	31.0	33.5	34.7	36.0	32.7	26.8	22.5	19.4	19.4	21.0	25.5	24.1	24.1	
Mountain	19.8	20.4	26.8	37.8	49.6	56.9	49.4	33.0	21.5	13.5	12.5	14.3	16.3	26.5	28.3	
Montana	2.7	2.9	4.5	5.8	10.5	11.3	8.9	5.2	2.3	.9	.7	.8	1.0	3.7	3.9	
Idaho	2.1	1.9	3.3	5.4	8.4	10.2	9.0	6.5	3.6	1.6	1.2	1.4	1.6	3.9	4.7	
Wyoming	.6	.9	1.3	1.9	3.0	3.6	3.1	1.7	.9	.4	.3	.4	.8	1.4	1.6	
Colorado	3.5	3.7	4.5	5.7	6.6	7.2	6.6	4.7	3.4	2.2	2.0	2.6	3.0	3.6	3.5	
New Mexico	2.7	2.7	3.2	4.0	4.8	5.5	4.3	2.7	2.1	1.5	1.5	1.8	1.9	2.7	3.3	
Arizona	4.2	4.0	4.6	5.6	6.4	6.8	6.0	4.2	3.5	3.1	3.1	3.4	3.3	4.5	4.5	
Utah	2.5	2.8	3.6	4.9	6.7	8.1	7.8	4.8	3.1	1.8	1.8	2.3	3.1	3.9	4.6	
Nevada	1.5	1.5	1.8	2.5	3.4	3.9	3.8	3.2	2.7	2.1	1.9	1.6	2.8	2.1	2.1	
Pacific	122.3	118.0	143.1	169.1	215.5	234.2	225.4	173.5	127.3	82.8	75.9	78.0	90.2	132.2	146.5	
Washington	16.4	13.3	18.3	26.6	38.8	51.4	52.2	41.8	30.6	19.5	15.0	14.4	14.2	28.1	30.9	
Oregon	11.3	9.1	13.1	20.7	30.0	35.6	37.5	28.8	19.3	10.1	6.4	5.8	6.3	16.2	17.1	
California	94.7	95.7	111.7	121.8	146.6	147.2	135.8	102.9	77.5	53.2	54.6	57.9	69.7	87.8	98.4	

¹ Average of weekly data adjusted for split weeks in the month. Figures may not add to exact column totals because of rounding.

SOURCE: U. S. Department of Labor, Bureau of Employment Security.

TABLE A-9. Unemployment insurance and employment service programs, selected operations¹

[All items except average benefit amounts are in thousands]

Item	1957							1956							1955	
	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	July		
Employment service:																
New applications for work.....	738	832	740	709	691	747	808	612	674	683	608	660	690	608		
Nonfarm placements.....	533	628	534	480	425	387	433	410	474	509	591	577	519	514		
State unemployment insurance programs ²																
Initial claims ³	1,267	881	1,001	1,000	897	1,002	1,565	1,229	973	834	761	837	1,119	969		
Insured unemployment ⁴ (average weekly volume).....	1,285	1,251	1,350	1,475	1,502	1,730	1,737	1,285	1,013	878	988	1,059	1,209	1,113		
Rate of insured unemployment ⁵	3.1	3.1	3.3	3.6	4.0	4.3	4.4	3.3	2.6	2.3	2.6	2.7	3.1	3.0		
Weeks of unemployment compensated.....	4,883	4,686	5,517	5,766	6,302	6,118	6,680	3,950	3,503	3,461	3,556	4,286	4,292	3,880		
Average weekly benefit amount for total unemployment.....	\$27.59	\$27.44	\$27.47	\$27.72	\$27.72	\$27.85	\$27.73	\$27.42	\$27.26	\$27.57	\$27.77	\$27.05	\$26.91	\$24.46		
Total benefits paid.....	\$130,130	\$123,540	\$145,657	\$154,329	\$168,841	\$164,860	\$177,598	\$104,245	\$91,700	\$91,476	\$94,919	\$112,207	\$111,708	\$91,602		
Unemployment compensation for veterans ⁶																
Initial claims ⁷	20	24	16	18	21	23	31	23	21	18	18	27	27	33		
Insured unemployment ⁸ (average weekly volume).....	34	33	31	39	47	49	45	35	28	24	33	42	41	59		
Weeks of unemployment compensated.....	165	138	156	191	218	207	206	145	118	122	169	211	187	255		
Total benefits paid ⁹	\$4,539	\$3,710	\$4,222	\$5,155	\$5,886	\$5,594	\$5,572	\$3,883	\$3,168	\$3,258	\$4,499	\$5,630	\$4,970	\$6,764		
Railroad unemployment insurance:																
Applications ¹⁰	54	33	16	20	9	11	19	17	21	12	11	23	97	38		
Insured unemployment (average weekly volume).....	50	36	42	53	60	67	68	59	49	37	41	57	66	30		
Number of payments ¹¹	94	86	109	125	151	138	165	119	98	89	94	173	85	52		
Average amount of benefit payment ¹²	\$53.50	\$60.86	\$37.68	\$58.14	\$59.68	\$60.01	\$58.65	\$58.08	\$58.04	\$59.19	\$58.92	\$58.23	\$48.89	\$47.03		
Total benefits paid ¹³	\$4,960	\$5,109	\$6,211	\$7,227	\$8,973	\$8,252	\$9,772	\$8,868	\$8,637	\$8,197	\$8,561	\$10,201	\$4,145	\$2,390		
All programs: ¹¹																
Insured unemployment ⁴	1,368	1,319	1,424	1,565	1,700	1,846	1,850	1,379	1,090	930	1,060	1,158	1,316	1,202		

¹ Average weekly insured unemployment excludes territories; other items include them.² Data include activities under the program of Unemployment Compensation for Federal Employees (UCFE), which became effective on January 1, 1955.³ An initial claim is a notice filed by a worker at the beginning of a period of unemployment which establishes the starting date for any insured unemployment which may result if he is unemployed for 1 week or longer.⁴ Number of workers reporting the completion of at least 1 week of unemployment.⁵ The rate of insured unemployment is the number of insured unemployed expressed as a percent of the average covered employment in a 12-month period.⁶ Based on claims filed under the Veterans' Readjustment Assistance Act of 1952. Excludes claims filed by veterans to supplement State, UCFE, or railroad unemployment insurance benefits.⁷ Federal portion only of benefits paid jointly with other programs. Weekly benefit amount for total unemployment is set by law at \$25.⁸ An application for benefits is filed by a railroad worker at the beginning of his first period of unemployment in a benefit year; no application is required for subsequent periods in the same year.⁹ Payments are for unemployment in 14-day registration periods; the average amount is an average for all compensable periods. Not adjusted for recovery of overpayments or settlement of underpayments.¹⁰ Adjusted for recovery of overpayments and settlement of underpayments.¹¹ Represents an unduplicated count of insured unemployment under the State, UCFE, and veterans' programs, and that covered by the Railroad Unemployment Insurance Act.

SOURCE: U. S. Department of Labor, Bureau of Employment Security for all items except railroad unemployment insurance, which are prepared by the U. S. Railroad Retirement Board.

B.—Labor Turnover

TABLE B-1. Labor turnover rates in manufacturing¹
[Per 100 employees]

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual average
Total accessions													
1948	4.6	3.9	4.0	4.0	4.1	5.7	4.7	5.0	5.1	4.5	3.9	2.7	4.4
1949	3.2	2.9	3.0	2.9	3.5	4.4	3.5	4.4	4.1	3.7	3.3	3.2	3.5
1950	3.6	3.2	3.6	3.5	4.4	4.8	4.7	6.6	5.7	5.2	4.0	3.0	4.4
1951	5.2	4.5	4.6	4.5	4.5	4.9	4.2	4.5	4.3	4.4	3.9	3.0	4.4
1952	4.4	3.9	3.9	3.7	3.9	4.9	4.4	5.9	5.6	5.2	4.0	3.3	4.4
1953	4.4	4.2	4.4	4.3	4.1	5.1	4.1	4.3	4.0	3.3	2.7	2.1	3.9
1954	2.8	2.5	2.8	2.4	2.7	3.5	2.9	3.3	3.4	3.6	3.8	2.5	3.0
1955	3.3	3.2	3.6	3.5	3.8	4.3	3.4	4.5	4.4	4.1	3.3	2.5	3.7
1956	3.3	3.1	3.1	3.3	3.4	4.2	3.3	3.8	4.1	4.2	3.0	2.2	3.4
1957	3.2	2.8	2.8	2.8	3.0	3.9	3.2	-	-	-	-	-	-
Total separations ²													
1948	4.3	4.7	4.5	4.7	4.3	4.5	4.4	5.1	5.4	4.5	4.1	4.3	4.6
1949	4.6	4.1	4.8	4.8	5.2	4.3	3.8	4.0	4.2	4.1	4.0	3.2	4.3
1950	3.1	3.0	2.9	2.8	3.1	3.0	2.9	4.2	4.9	4.3	3.8	3.6	3.5
1951	4.1	3.8	4.1	4.6	4.8	4.3	4.4	5.3	5.1	4.7	4.3	3.5	4.4
1952	4.0	3.9	3.7	4.1	3.9	3.9	5.0	4.6	4.9	4.2	3.5	3.4	4.1
1953	3.8	3.6	4.1	4.3	4.4	4.2	4.8	4.8	5.2	4.5	4.2	4.0	4.3
1954	4.3	3.5	3.7	3.8	3.3	3.1	3.1	3.5	3.9	3.3	3.0	3.0	3.5
1955	2.9	2.5	3.0	3.1	3.2	3.2	3.4	4.0	4.4	3.5	3.1	3.0	3.3
1956	3.6	3.6	3.5	3.4	3.7	3.4	3.2	3.9	4.4	3.5	3.3	2.8	3.5
1957	3.3	3.0	3.3	3.3	3.4	3.0	3.0	3.2	-	-	-	-	-
Quits													
1948	2.6	2.5	2.8	3.0	2.8	2.9	2.9	3.4	3.9	2.8	2.2	1.7	2.8
1949	1.7	1.4	1.6	1.7	1.6	1.5	1.4	1.8	2.1	1.5	1.2	.9	1.5
1950	1.1	1.0	1.2	1.3	1.6	1.7	1.8	2.9	3.4	2.7	2.1	1.7	1.9
1951	2.1	2.1	2.5	2.7	2.8	2.5	2.4	3.1	3.1	2.5	1.9	1.4	2.4
1952	1.9	1.9	2.0	2.2	2.2	2.2	2.2	3.0	3.5	2.8	2.1	1.7	2.3
1953	2.1	2.2	2.5	2.7	2.7	2.6	2.5	2.9	3.1	2.1	1.5	1.1	2.3
1954	1.1	1.0	1.0	1.1	1.0	1.1	1.1	1.4	1.8	1.2	1.0	.9	1.1
1955	1.0	1.0	1.3	1.5	1.5	1.5	1.6	2.2	2.8	1.8	1.4	1.1	1.6
1956	1.4	1.3	1.4	1.5	1.6	1.6	1.5	2.2	2.6	1.7	1.3	1.0	1.6
1957	1.3	1.2	1.3	1.3	1.4	1.3	1.4	-	-	-	-	-	-
Discharges													
1948	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4
1949	.3	.3	.3	.2	.2	.2	.2	.3	.2	.2	.2	.2	.2
1950	.2	.2	.2	.2	.3	.3	.3	.4	.4	.4	.3	.3	.3
1951	.3	.3	.3	.4	.4	.4	.3	.4	.3	.4	.3	.3	.3
1952	.3	.3	.3	.3	.3	.3	.3	.3	.4	.4	.4	.3	.3
1953	.3	.4	.4	.4	.4	.4	.4	.4	.4	.4	.3	.2	.4
1954	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2
1955	.2	.2	.2	.2	.3	.3	.3	.3	.3	.3	.3	.2	.3
1956	.2	.2	.2	.2	.3	.3	.2	.3	.3	.3	.3	.2	.3
1957	.2	.2	.2	.2	.3	.2	.2	-	-	-	-	-	-
Layoffs													
1948	1.2	1.7	1.2	1.2	1.1	1.1	1.0	1.2	1.0	1.2	1.4	2.2	1.3
1949	2.5	2.3	2.3	2.8	3.3	2.5	2.1	1.8	1.8	2.3	2.5	2.0	2.4
1950	1.7	1.7	1.4	1.2	1.1	1.9	.6	.6	.8	1.1	1.3	1.1	1.1
1951	1.0	.8	.8	1.0	1.2	1.0	1.3	1.4	1.3	1.4	1.7	1.8	1.2
1952	1.4	1.3	1.1	1.3	1.1	1.1	2.2	1.0	.7	.7	.7	1.0	1.1
1953	.9	.8	.8	.9	1.0	.9	1.1	1.3	1.5	1.8	2.3	2.5	1.3
1954	2.8	2.2	2.3	2.4	1.9	1.7	1.6	1.7	1.5	1.6	1.6	1.7	1.9
1955	1.5	1.1	1.3	1.2	1.1	1.2	1.3	1.3	1.1	1.2	1.2	1.4	1.2
1956	1.7	1.8	1.6	1.4	1.6	1.3	1.2	1.2	1.4	1.3	1.5	1.4	1.5
1957	1.5	1.4	1.4	1.5	1.5	1.1	1.4	-	-	-	-	-	-
Miscellaneous separations, including military													
1948	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
1949	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
1950	.1	.1	.1	.1	.1	.1	.1	.2	.4	.4	.3	.3	.2
1951	.7	.6	.5	.5	.4	.4	.4	.4	.4	.4	.4	.3	.5
1952	.4	.4	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3
1953	.4	.4	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2
1954	.3	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2
1955	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2
1956	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2
1957	.3	.2	.2	.2	.3	.2	.2	.2	.2	.2	.2	.2	.2

¹ Month-to-month changes in total employment in manufacturing industries as indicated by labor turnover rates are not comparable with the changes shown by the Bureau's employment series for the following reasons:

(1) The labor turnover series measure changes during the calendar month, while the employment series measure changes from midmonth to midmonth;

(2) Industry coverage is not identical, as the printing and publishing industry and some seasonal industries are excluded from turnover;

(3) Turnover rates tend to be understated because small firms are not as prominent in the turnover sample as in the employment sample, and

(4) Reports from plants affected by work stoppages are excluded from the turnover series, but the employment series reflect the influence of such stoppages.

² Preliminary.

³ Beginning with data for October 1952, components may not add to total separation rates because of rounding.

NOTE: For a description of these series, see Techniques of Preparing Major BLS Statistical Series, BLS Bull. 1168 (1954).

SOURCE: U. S. Department of Labor, Bureau of Labor Statistics.

TABLE B-2. Labor turnover rates in selected industries¹
[Per 100 employees]

Industry	Total accessions				Separations								Miscellaneous, including military	
	Total		Quits		Discharges		Layoffs							
	July 1957	June 1957	July 1957	June 1957	July 1957	June 1957	July 1957	June 1957	July 1957	June 1957	July 1957	June 1957	July 1957	June 1957
Manufacturing														
All manufacturing	3.2	3.9	3.2	3.0	1.4	1.3	0.2	0.2	1.4	1.1	0.2	0.2	0.2	
Durable goods ²	3.2	3.9	3.4	3.1	1.3	1.3	.3	.3	1.6	1.3	.2	.3	.2	
Nondurable goods ¹	3.3	3.9	2.9	2.7	1.5	1.4	.2	.2	.9	.9	.2	.2	.2	
Ordnance and accessories	2.9	3.4	2.1	3.4	0.8	1.0	0.1	0.1	0.9	2.1	0.2	0.2	0.2	
Food and kindred products	4.0	5.6	3.3	3.5	1.3	1.3	.3	.3	1.6	1.7	.2	.2	.2	
Meat products	3.3	4.0	3.2	2.6	.8	.8	.2	.2	1.9	1.3	.2	.2	.2	
Grain-mill products	3.1	4.5	2.7	2.6	1.2	.9	.1	.2	1.3	1.3	.1	.2	.1	
Bakery products	4.1	4.9	3.1	3.3	2.0	2.1	.4	.4	.6	.6	.2	.2	.2	
Beverages														
Malt liquors	(6)	8.3	(6)	4.2	(6)	.7	(6)	.2	(6)	3.1	(6)	.1	.1	
Tobacco manufactures	4.2	2.1	2.7	1.7	1.5	1.2	.2	.2	.8	.2	.2	.1	.1	
Cigarettes	4.8	2.3	1.8	1.1	1.1	.7	.2	.2	.1	.1	.3	.1	.1	
Cigars	4.4	1.8	4.2	2.2	2.2	1.7	.3	.2	1.7	.3	.1	(6)	(6)	
Tobacco and snuff	.6	2.5	1.3	1.8	.7	1.1	.1	.1	(6)	.2	.5	.4	.4	
Textile-mill products	3.1	3.1	3.3	3.2	1.8	1.6	.2	.2	1.2	1.3	.2	.2	.2	
Yarn and thread mills	4.0	2.8	3.3	3.5	1.9	1.6	.2	.3	1.0	1.5	.2	.2	.2	
Broad-woven fabric mills	3.0	3.1	3.2	3.2	1.8	1.6	.3	.2	.9	1.2	.2	.2	.2	
Cotton, silk, synthetic fiber	2.8	2.9	3.1	3.2	1.9	1.6	.2	.2	.8	1.1	.2	.2	.2	
Woolen and worsted	4.1	4.6	4.2	3.6	1.6	1.4	.5	.3	2.1	1.8	.2	.2	.2	
Knitting mills	3.6	3.7	3.9	3.0	2.0	1.9	.2	.3	1.6	.7	.1	.1	.1	
Full-fashioned hosiery	1.7	1.2	5.1	2.5	1.9	1.6	.3	.2	2.7	.9	.1	.1	.1	
Seamless hosiery	4.1	3.9	2.9	2.7	1.7	2.0	.2	.2	1.0	.4	.1	.1	.1	
Knit underwear	3.4	3.0	2.4	1.6	1.6	1.2	.2	.2	.6	.3	(6)	(6)	(6)	
Dyeing and finishing textiles	2.0	2.6	2.7	3.5	1.1	1.1	.2	.2	1.2	2.1	.2	.2	.2	
Carpets, rugs, other floor coverings	(6)	1.5	(6)	3.8	(6)	.9	(6)	.2	(6)	2.5	(6)	.2	.2	
Apparel and other finished textile products	3.8	3.5	3.4	3.1	2.5	2.0	.2	.2	.6	.9	.2	.1	.1	
Men's and boys' suits and coats	2.4	3.8	2.2	1.8	1.7	1.2	(6)	.1	.2	.3	.2	.1	.1	
Men's and boys' furnishings and work clothing	4.0	3.6	3.6	3.5	2.7	2.3	.3	.2	.5	.9	.1	.1	.1	
Lumber and wood products (except furniture)	4.2	6.6	5.3	4.2	2.8	2.4	.4	.4	1.9	1.1	.2	.2	.2	
Logging camps and contractors	7.7	11.0	11.4	4.5	5.1	3.4	.5	.3	5.7	.6	.1	.2	.2	
Sawmills and planing mills	3.9	6.0	4.3	4.5	2.5	2.4	.5	.5	1.1	1.4	.2	.2	.2	
Millwork, plywood, and prefabricated structural wood products	3.2	5.4	2.8	2.6	2.0	1.7	.3	.3	.5	.5	.1	.1	.1	
Furniture and fixtures	3.9	3.5	3.0	3.8	1.7	1.5	.3	.3	.8	1.9	.2	.2	.2	
Household furniture	3.8	3.5	2.9	4.4	1.8	1.6	.3	.3	.6	2.2	.2	.2	.2	
Other furniture and fixtures	4.1	3.4	3.3	2.6	1.4	1.3	.3	.2	1.3	1.0	.2	.2	.2	
Paper and allied products	3.2	3.8	2.4	2.4	1.3	1.3	.3	.2	.7	.7	.2	.2	.2	
Pulp, paper, and paperboard mills	2.0	3.3	1.6	1.8	.8	.8	.1	.1	.6	.7	.2	.2	.2	
Paperboard containers and boxes	3.7	4.5	3.0	2.4	1.9	1.7	.4	.3	.5	.2	.2	.2	.2	
Chemicals and allied products	2.0	3.1	1.9	1.4	.8	.8	.1	.1	.8	.3	.1	.1	.1	
Industrial inorganic chemicals	1.7	3.1	2.8	1.3	.9	.8	.2	.2	1.6	.2	.2	.2	.2	
Industrial organic chemicals	1.4	2.5	1.6	1.2	.4	.5	.1	.1	.9	.5	.1	.1	.1	
Synthetic fibers	1.5	1.7	1.3	1.2	.3	.4	(6)	.1	.8	.6	.1	.1	.1	
Drugs and medicines	3.1	4.0	1.4	1.3	1.0	1.1	.1	.1	.1	(6)	.1	.1	.1	
Paints, pigments, and fillers	1.5	2.9	1.8	1.4	.9	.8	.2	.2	.6	.3	.1	.1	.1	
Products of petroleum and coal	1.5	3.3	.8	.9	.3	.4	.1	.1	.2	.1	.2	.2	.2	
Petroleum refining	.9	3.1	.6	.7	.2	.3	(6)	(6)	(6)	(6)	.2	.2	.2	
Rubber products	3.1	3.2	2.3	2.1	1.2	1.0	.2	.2	.5	.6	.3	.3	.3	
Tires and inner tubes	2.5	2.5	1.5	1.4	.8	.7	.1	.1	.3	.3	.3	.3	.3	
Rubber footwear	3.0	3.0	2.3	2.0	1.7	1.4	.2	.1	.2	.3	.3	.2	.2	
Other rubber products	3.5	3.8	2.9	2.8	1.5	1.3	.4	.3	.8	.9	.3	.3	.3	
Leather and leather products	5.1	4.8	3.9	3.5	2.4	2.2	.3	.3	.6	.6	.6	.5	.5	
Leather: tanned, curried, and finished	2.4	2.8	2.4	2.4	1.2	.9	.2	.2	.3	.7	.3	.3	.3	
Footwear (except rubber)	5.5	5.1	4.2	3.7	2.6	2.4	.3	.3	.6	.6	.6	.5	.5	
Stone, clay, and glass products	3.0	3.4	3.8	2.5	1.1	1.0	.2	.2	2.3	1.0	.3	.2	.2	
Glass and glass products	3.5	3.8	5.8	2.5	1.0	.9	.2	.2	4.2	1.2	.4	.2	.2	
Cement, hydraulic	2.3	3.1	1.7	2.3	.8	.8	.2	.2	.4	1.0	.2	.3	.2	
Structural clay products	2.7	3.4	4.1	2.6	1.3	1.5	.2	.3	2.3	.7	.2	.1	.1	
Pottery and related products	3.3	2.6	3.1	3.3	1.5	1.4	.2	.3	1.2	1.4	.1	.2	.2	
Primary metal industries	1.8	2.6	2.4	1.9	.6	.7	.2	.2	1.3	.7	.3	.3	.3	
Blast furnaces, steelworks, and rolling mills	1.5	2.5	2.1	1.5	.5	.6	.1	.1	1.2	.5	.3	.3	.3	
Iron and steel foundries	2.0	2.2	2.8	2.5	1.0	.9	.2	.2	1.4	1.1	.2	.2	.2	
Gray-iron foundries	2.1	2.0	3.0	3.0	1.1	1.0	.2	.2	1.4	1.7	.2	.2	.2	
Malable-iron foundries	1.5	2.6	2.1	1.8	1.0	1.0	.1	.2	.8	.3	.2	.3	.2	
Steel foundries	2.1	2.2	3.0	2.3	.8	.9	.3	.3	1.6	.8	.2	.2	.2	
Primary smelting and refining of non-ferrous metals:														
Primary smelting and refining of copper, lead, and zinc	1.4	2.7	2.4	2.3	.7	1.1	.4	.4	1.1	.6	.2	.2	.2	
Rolling, drawing, and alloying of non-ferrous metals:														
Rolling, drawing, and alloying of copper	1.1	1.8	1.1	1.2	.5	.4	.1	.1	.3	.2	.3	.4	.4	
Nonferrous foundries	3.2	4.1	4.1	2.8	1.3	1.0	.3	.4	2.1	1.1	.4	.3	.3	
Other primary metal industries:														
Iron and steel forgings	1.7	3.4	1.8	2.5	.7	.9	.2	.3	.7	1.1	.2	.2	.2	

See footnotes at end of table.

TABLE B-2. Labor turnover rates in selected industries¹—Continued
[Per 100 employees]

Industry	Total accessions		Separations									
			Total		Quits		Discharges		Layoffs		Miscellaneous, including military	
	July 1957	June 1957	July 1957	June 1957	July 1957	June 1957	July 1957	June 1957	July 1957	June 1957	July 1957	June 1957
Manufacturing—Continued												
Fabricated metal products (except ordnance, machinery, and transportation equipment)	3.5	4.1	3.6	3.2	1.4	1.2	0.3	0.3	1.6	1.3	0.2	0.2
Cutlery, handtools, and hardware	2.5	2.5	2.5	2.9	1.3	1.1	.3	.3	.6	1.2	.3	.3
Cutlery and edge tools	2.6	1.2	1.8	3.3	1.1	1.1	.1	.3	.4	1.6	.2	.2
Handtools	2.1	2.4	2.3	2.1	.9	.9	.2	.2	.8	.8	.4	.2
Hardware	2.7	2.9	2.8	3.2	1.6	1.2	.4	.3	.5	1.3	.3	.3
Heating apparatus (except electric) and plumbers' supplies	3.5	4.0	4.4	2.8	1.7	1.4	.3	.4	2.2	.7	.2	.3
Sanitary ware and plumbers' supplies	2.6	2.5	1.9	2.1	.9	.9	.3	.2	.5	.6	.2	.4
Oil burners, nonelectric heating and cooking apparatus, not elsewhere classified	3.9	4.7	5.9	3.2	2.2	1.6	.4	.6	3.1	.8	.2	.2
Fabricated structural metal products	3.9	4.6	2.8	2.6	1.5	1.3	.4	.4	.7	.7	.2	.2
Metal stamping, coating, and engraving	3.5	3.7	4.7	4.2	1.4	1.1	.3	.3	2.7	2.4	.3	.4
Machinery (except electrical)	2.0	2.6	2.8	3.0	.9	1.0	.2	.2	1.4	1.5	.3	.3
Engines and turbines	2.0	2.1	2.4	3.8	.7	.9	.1	.2	1.4	1.4	.2	.4
Agricultural machinery and tractors	1.7	2.9	2.6	2.8	.8	.9	.2	.2	1.1	1.1	.4	.5
Construction and mining machinery	2.2	2.7	3.1	3.7	1.1	1.2	.3	.3	1.5	1.9	.2	.2
Metalworking machinery	1.1	2.1	2.5	2.3	.8	.9	.2	.2	1.4	.9	.2	.3
Machine tools	.9	1.8	2.4	2.2	.7	.9	.2	.2	1.8	.9	.2	.3
Metalworking machinery (except machine tools)	1.0	2.1	2.0	2.3	.7	.9	.1	.2	1.0	.9	.2	.2
Machine-tool accessories	2.0	2.7	3.5	2.5	.9	1.1	.3	.3	2.1	.8	.2	.3
Special-industry machinery (except metalworking machinery)	1.5	2.3	2.1	2.3	.8	1.0	.2	.2	.8	.9	.3	.2
General industrial machinery	2.6	3.0	2.2	2.5	1.0	1.1	.3	.3	.7	.9	.2	.2
Office and store machines and devices	1.9	3.0	2.3	2.3	.9	1.2	.1	.2	1.0	.7	.2	.2
Service-industry and household machines	3.3	3.1	6.5	6.8	.9	.9	.2	.1	4.9	5.6	.5	.3
Miscellaneous machinery parts	1.9	2.4	2.1	2.1	.9	.9	.2	.2	.7	.7	.3	.3
Electrical machinery	3.5	3.8	2.9	3.0	1.4	1.6	.3	.3	1.0	.9	.2	.3
Electrical generating, transmission, distribution, and industrial apparatus	2.7	2.7	2.7	2.8	1.3	1.3	.2	.2	1.0	1.0	.2	.2
Communication equipment	(*)	4.7	(*)	3.0	(*)	1.9	(*)	.3	(*)	.5	(*)	(*)
Radios, phonographs, television sets, and equipment	5.1	5.7	3.0	3.2	1.7	2.0	.3	.3	.8	.6	.2	.2
Telephone, telegraph, and related equipment	(*)	3.1	(*)	2.5	(*)	1.4	(*)	.2	(*)	.5	(*)	.3
Electrical appliances, lamps, and miscellaneous products	4.4	3.4	4.8	3.9	1.4	1.2	.4	.2	2.6	2.0	.4	.4
Transportation equipment	4.2	4.6	4.5	3.6	1.4	1.4	.3	.3	2.6	1.6	.3	.4
Motor vehicles and equipment*	4.0	3.8	4.0	3.8	.8	.8	.2	.2	2.6	2.0	.4	.4
Aircraft and parts	3.0	4.2	3.9	2.7	1.7	1.7	.2	.2	1.8	.6	.2	.2
Aircraft	3.1	4.6	4.1	2.5	1.8	1.8	.2	.2	1.9	.4	.2	.3
Aircraft engines and parts	2.0	2.4	1.9	2.9	.9	1.2	.2	.1	.7	1.3	.2	.3
Aircraft propellers and parts	(*)	3.3	(*)	1.4	(*)	.9	(*)	.2	(*)	.1	(*)	(*)
Other aircraft parts and equipment	4.3	4.9	5.3	3.9	2.2	1.9	.6	.5	2.3	1.4	.1	.1
Ship and boat building and repairing	(*)	11.7	(*)	9.0	(*)	2.8	(*)	.7	(*)	5.3	(*)	.3
Railroad equipment	2.5	3.4	4.9	2.8	1.0	1.0	.2	.2	3.3	1.0	.5	.4
Locomotives and parts	1.3	1.9	5.3	2.9	.6	.9	(*)	.1	3.9	1.3	.8	.6
Railroad and street cars	3.3	4.0	4.7	2.8	1.2	1.1	.3	.7	2.9	.8	.3	.2
Other transportation equipment	7.8	5.1	3.0	2.5	2.0	1.6	.6	.7	(*)	.1	.3	.1
Instruments and related products	2.3	3.1	2.5	2.2	1.3	1.1	.3	.2	.8	.7	.2	.2
Photographic apparatus	(*)	2.6	(*)	1.3	(*)	.7	(*)	.1	(*)	.3	(*)	.4
Watches and clocks	(*)	3.3	(*)	2.7	(*)	1.3	(*)	.2	(*)	.8	(*)	.4
Professional and scientific instruments	1.8	3.3	2.5	2.3	1.1	1.2	.2	.2	1.0	.7	.1	.2
Miscellaneous manufacturing industries	4.7	5.5	3.2	4.1	1.8	2.0	.4	.4	.9	1.5	.2	.2
Jewelry, silverware, and plated ware	2.0	2.5	1.5	1.6	.9	1.0	.1	.1	.3	.3	.2	.2
<i>Nonmanufacturing</i>												
Metal mining	2.2	4.1	2.7	3.2	1.7	2.4	.2	.3	.5	.3	.4	.3
Iron mining	.8	1.6	.6	.8	.2	.2	.1	(*)	(*)	.3	.4	.3
Copper mining	2.4	2.8	4.0	4.0	3.0	3.2	.2	.3	.3	.1	.5	.5
Lead and zinc mining	1.5	5.2	4.1	2.9	1.4	1.9	.2	.2	2.3	.7	.3	.1
Anthracite mining	(*)	.8	(*)	10.3	(*)	.3	(*)	(*)	(*)	9.9	(*)	.1
Bituminous-coal mining	1.1	.9	1.8	1.5	.5	.4	.1	(*)	1.1	.9	.2	.1
Communication:												
Telephone	(*)	3.6	(*)	2.1	(*)	1.7	(*)	-1	(*)	.2	(*)	.1
Telegraph	(*)	2.7	(*)	1.6	(*)	1.0	(*)	(*)	(*)	.2	(*)	.1

* See footnote 1 and Note, table B-1.

† For definition, see footnote 3, table A-2.

‡ For definition, see footnote 4, table A-2, except that the labor turnover series excludes the printing, publishing, and allied industries group, and the following industries: canning and preserving; women's, misses', and children's outerwear; and fertilizer.

* Not available.

¹ Less than 0.05.

² Data relate to domestic employees except messengers and those compensated entirely on a commission basis.

³ Formerly titled "Automobiles." Data not affected.

SOURCE: U. S. Department of Labor, Bureau of Labor Statistics.

C.—Earnings and HoursTABLE C-1. Hours and gross earnings of production workers or nonsupervisory employees¹

Year and month	Avg. wky. earnings	Avg. wky. hours	Avg. hrly. earnings												
Mining															
Metal															
Total: Metal															
Iron															
Copper															
Lead and zinc															
Coal															
Anthracite															
Bituminous															
1955: Average-----	\$92.42	42.2	\$2.19	\$92.86	40.2	\$2.31	\$95.70	44.1	\$2.17	\$83.82	41.7	\$2.01	\$84.50	33.4	\$2.53
1956: Average-----	96.83	42.1	2.30	96.71	39.8	2.43	100.28	43.6	2.30	89.24	41.7	2.14	87.65	33.2	2.64
July.....	96.02	42.3	2.27	89.05	36.2	2.46	100.39	42.9	2.34	90.30	42.0	2.15	92.20	35.6	2.59
August.....	92.40	40.0	2.31	82.38	33.9	2.43	100.62	43.0	2.34	91.37	42.3	2.16	87.25	33.3	2.62
September.....	100.30	42.5	2.36	103.41	41.2	2.51	103.84	44.0	2.36	89.40	41.2	2.17	87.88	33.8	2.60
October.....	97.39	41.8	2.33	97.71	39.4	2.48	101.32	43.3	2.34	95.25	41.9	2.13	94.87	35.4	2.68
November.....	96.00	41.2	2.33	98.21	39.6	2.46	96.93	41.6	2.33	88.37	41.1	2.15	91.19	33.9	2.69
December.....	99.92	42.7	2.34	103.09	41.4	2.49	100.66	43.2	2.33	91.14	42.0	2.17	107.45	36.3	2.96
1957: January.....	98.05	41.9	2.34	100.90	40.2	2.51	99.98	42.6	2.34	89.44	41.6	2.15	105.55	35.9	2.94
February.....	97.29	41.4	2.35	99.31	39.1	2.54	98.37	42.4	2.32	88.78	41.1	2.16	95.36	32.0	2.98
March.....	97.23	41.2	2.36	99.45	39.0	2.55	98.94	42.1	2.35	90.25	41.4	2.18	79.79	27.8	2.87
April.....	97.10	40.8	2.38	96.26	37.6	2.56	99.83	42.3	2.36	91.10	41.6	2.19	92.06	31.1	2.96
May.....	97.58	41.0	2.38	99.58	38.9	2.56	99.17	42.2	2.35	91.03	41.3	2.18	88.70	30.8	2.88
June.....	98.81	41.0	2.41	103.06	40.1	2.57	98.88	41.2	2.40	89.60	41.1	2.18	100.50	34.3	2.93
July.....	98.65	40.1	2.46	105.06	39.2	2.68	99.06	40.6	2.44	87.02	40.1	2.17	112.73	36.6	3.08
Mining—Continued															
Contract construction															
Petroleum and natural-gas production (except contract services)															
Nonmetallic mining and quarrying															
Total: Contract construction															
Total: Nonbuilding construction															
Highway and street															
Other nonbuilding construction															
1955: Average-----	\$94.19	40.6	\$2.32	\$80.99	44.5	\$1.82	\$95.94	36.9	\$2.60	\$95.11	40.3	\$2.36	\$91.27	41.3	\$2.21
1956: Average-----	101.68	41.0	2.48	85.63	44.6	1.92	101.83	37.3	2.73	101.59	40.8	2.49	97.63	41.9	2.33
July.....	106.01	41.9	2.53	88.01	45.6	1.93	103.25	38.1	2.71	105.88	42.4	2.49	102.70	43.7	2.35
August.....	100.28	40.6	2.47	87.69	45.2	1.94	104.04	38.3	2.74	106.42	42.4	2.51	105.16	44.0	2.39
September.....	107.70	42.4	2.54	89.77	45.8	1.96	106.92	38.6	2.77	108.28	42.8	2.53	106.12	44.4	2.39
October.....	101.09	40.6	2.49	89.83	45.6	1.97	107.14	38.4	2.79	108.12	42.4	2.55	106.52	44.2	2.41
November.....	101.50	40.6	2.50	87.22	44.5	1.96	102.45	36.6	2.80	100.84	39.7	2.54	95.41	41.6	2.35
December.....	104.58	41.5	2.52	85.46	43.6	1.96	103.78	36.8	2.82	99.96	39.2	2.55	90.94	39.2	2.32
1957: January.....	104.83	41.6	2.52	82.32	42.0	1.96	98.55	34.7	2.84	94.86	37.2	2.55	83.90	36.8	2.28
February.....	101.91	40.6	2.51	84.05	43.1	1.95	104.80	36.9	2.84	101.38	39.6	2.56	93.09	40.3	2.31
March.....	101.25	40.5	2.50	84.63	43.4	1.95	104.23	36.7	2.84	100.47	39.4	2.55	91.77	39.9	2.30
April.....	100.75	40.3	2.50	84.87	43.8	1.96	104.88	36.8	2.85	100.85	39.1	2.58	93.37	39.9	2.34
May.....	104.23	40.4	2.58	87.71	44.3	1.98	106.29	37.2	2.86	103.88	38.9	2.61	96.64	40.1	2.41
June.....	109.18	41.2	2.65	90.45	45.0	2.01	108.11	37.8	2.86	106.63	40.7	2.62	101.33	41.7	2.43
July.....	110.00	41.2	2.67	91.10	45.1	2.02	109.35	38.1	2.87	110.62	41.9	2.64	107.31	43.8	2.45
Building construction															
Total: Building construction															
General contractors															
Total: Special-trade contractors															
Plumbing and heating															
Painting and decorating															
1955: Average-----	\$96.20	36.2	\$2.66	\$90.22	35.8	\$2.52	\$100.83	36.4	\$2.77	\$106.40	38.0	\$2.80	\$94.38	34.7	\$2.72
1956: Average-----	101.92	36.4	2.80	95.04	36.0	2.64	107.16	36.7	2.92	112.31	38.2	2.94	100.10	35.0	2.86
July.....	103.23	37.0	2.79	96.52	36.7	2.63	108.25	37.2	2.91	113.58	38.5	2.95	100.04	35.1	2.85
August.....	104.53	37.2	2.81	98.05	37.0	2.65	109.96	37.4	2.94	114.35	38.5	2.97	103.10	35.8	2.88
September.....	106.22	37.4	2.84	99.06	37.1	2.67	111.97	37.7	2.97	115.03	38.6	2.98	103.24	35.6	2.90
October.....	102.75	35.8	2.87	96.21	35.5	2.71	108.00	36.0	3.00	112.57	37.4	3.01	96.36	33.8	2.88
November.....	109.51	36.3	2.89	94.45	35.6	2.71	111.14	36.8	3.02	117.56	38.8	3.03	100.74	34.5	2.92
December.....	99.57	34.1	2.92	89.76	33.0	2.72	106.45	34.9	3.05	115.67	37.8	3.06	97.28	32.2	2.87
1957: January.....	105.63	36.3	2.91	98.19	36.1	2.72	113.33	35.5	3.05	116.89	38.2	3.06	99.57	34.1	2.92
February.....	104.76	36.0	2.91	95.93	35.4	2.71	110.96	35.3	3.04	116.97	38.1	3.07	102.31	34.8	2.94
March.....	105.70	36.2	2.92	97.46	35.7	2.73	111.33	36.8	3.05	116.97	38.1	3.07	102.31	34.8	2.94
April.....	107.02	36.4	2.94	99.00	36.0	2.75	112.61	36.8	3.06	117.73	38.1	3.09	104.14	35.3	2.95
May.....	106.49	36.9	2.94	100.65	36.6	2.75	114.58	37.2	3.08	119.42	38.4	3.11	105.55	35.8	2.99
June.....	108.78	37.0	2.94	101.94	36.8	2.77	113.90	37.1	3.07	118.04	38.2	3.09	107.21	35.5	3.02
Manufacturing															
Total: Manufacturing															
Durable goods ³															
Nondurable goods ³															
Total: Ordnance and accessories															
Food and kindred products															
Total: Food and kindred products ⁴															
1955: Average-----	\$96.21	35.5	\$2.71	\$76.52	40.7	\$1.88	\$83.21	41.4	\$2.01	\$68.06	39.8	\$1.71	\$83.44	40.7	\$2.05
1956: Average-----	102.39	35.8	2												

TABLE C-1. Hours and gross earnings of production workers or nonsupervisory employees¹—Con.

Year and month	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings										
Manufacturing—Continued																		
Food and kindred products—Continued																		
Meat products ⁴																		
Meatpacking, wholesale																		
Sausages and casings																		
Dairy products ⁵																		
Condensed and evaporated milk																		
Ice cream and ices																		
1955: Average.....	\$83.16	42.0	\$1.96	\$86.92	42.4	\$2.05	\$81.09	41.8	\$1.94	\$72.48	43.4	\$1.67	\$74.46	45.4	\$1.64	\$75.06	42.9	\$1.75
1956: Average.....	84.03	41.6	2.02	92.00	42.2	2.18	85.08	41.5	2.05	74.47	42.3	1.74	75.95	43.9	1.73	77.46	42.1	1.84
July.....	82.20	41.1	2.00	89.44	41.6	2.15	87.34	42.4	2.06	75.95	43.4	1.75	77.43	44.5	1.74	78.69	43.0	1.83
August.....	80.59	40.7	1.98	87.74	41.0	2.14	85.07	41.7	2.04	74.47	42.8	1.74	76.56	44.0	1.74	76.86	42.0	1.83
September.....	88.20	42.0	2.00	98.74	43.2	2.17	86.31	41.9	2.06	75.68	43.0	1.76	78.59	44.4	1.77	79.42	42.7	1.86
October.....	84.23	41.7	2.02	92.64	42.2	2.20	83.44	40.7	2.05	74.80	42.5	1.76	75.25	43.0	1.75	78.49	42.2	1.86
November.....	91.80	43.3	2.12	101.85	43.9	2.32	88.62	42.2	2.10	75.23	42.5	1.77	75.23	42.5	1.77	78.17	41.8	1.87
December.....	87.14	41.3	2.11	96.87	42.3	2.29	87.35	41.4	2.11	75.54	42.2	1.76	76.01	42.7	1.78	78.47	41.3	1.90
1957: January.....	87.10	40.7	2.14	97.25	42.1	2.31	85.01	40.1	2.12	75.66	41.8	1.81	78.12	43.4	1.80	77.33	40.7	1.90
February.....	85.57	39.8	2.15	94.71	41.0	2.31	84.77	39.8	2.13	75.06	41.7	1.80	76.68	42.6	1.80	78.66	41.4	1.90
March.....	83.71	39.3	2.13	92.52	40.4	2.29	83.71	39.3	2.13	76.02	42.0	1.81	78.51	42.9	1.83	79.07	41.4	1.91
April.....	84.99	39.9	2.13	93.15	40.5	2.30	87.08	40.5	2.15	75.84	41.9	1.81	78.14	42.7	1.83	79.27	41.5	1.91
May.....	86.28	40.7	2.12	95.17	41.2	2.31	91.12	41.8	2.18	78.87	43.1	1.83	79.92	43.2	1.85	82.60	42.8	1.93
June.....	87.13	41.1	2.12	95.87	41.5	2.31	90.91	41.7	2.18	80.04	43.5	1.84	80.66	43.6	1.85	86.09	43.7	1.97
July.....	87.33	41.0	2.13	95.58	41.2	2.32												
Canning and preserving ⁶																		
Seafood, canned and cured																		
Canned fruits, vegetables, and soups																		
Grain-mill products ⁷																		
Flour and other grain-mill products																		
Prepared feeds																		
1955: Average.....	\$56.50	38.7	\$1.46	\$50.55	32.2	\$1.57	\$58.65	39.9	\$1.47	\$77.62	44.1	\$1.76	\$83.51	44.9	\$1.86	\$74.25	45.0	\$1.65
1956: Average.....	62.02	39.1	1.57	50.66	30.7	1.65	64.27	41.2	1.56	81.35	43.5	1.87	82.99	43.0	1.93	78.05	44.6	1.75
July.....	61.23	39.5	1.55	49.77	31.3	1.59	66.27	41.2	1.56	81.35	43.5	1.88	86.04	43.9	1.96	75.86	43.6	1.74
August.....	65.05	41.7	1.56	49.75	30.9	1.61	68.57	43.4	1.58	81.59	43.4	1.88	86.04	43.9	1.96	75.86	43.6	1.74
September.....	66.73	42.5	1.57	49.84	28.9	1.69	71.39	44.9	1.59	85.00	44.5	1.91	91.80	45.9	2.00	78.94	44.6	1.77
October.....	64.96	40.6	1.60	50.27	30.1	1.67	70.25	43.1	1.63	84.42	44.2	1.91	89.89	45.4	1.98	78.32	44.0	1.78
November.....	57.56	36.9	1.56	44.76	26.8	1.67	61.23	39.0	1.57	82.70	43.3	1.91	89.20	44.6	2.00	77.94	43.3	1.80
December.....	61.02	37.9	1.61	54.87	31.9	1.72	65.01	39.4	1.65	83.14	43.3	1.92	88.70	44.8	1.98	78.99	43.4	1.82
1957: January.....	61.99	37.8	1.64	50.49	29.7	1.70	65.18	38.8	1.68	83.38	43.2	1.93	91.00	45.5	2.00	79.17	43.5	1.82
February.....	61.78	37.9	1.63	46.31	27.4	1.69	65.63	39.3	1.67	82.60	42.8	1.93	87.32	44.1	1.98	77.47	42.8	1.81
March.....	61.59	37.1	1.66	53.15	30.9	1.72	65.66	38.4	1.71	82.03	42.5	1.93	87.43	43.3	1.96	77.29	42.7	1.81
April.....	62.83	37.4	1.68	53.69	31.4	1.71	66.47	38.2	1.74	82.22	42.6	1.93	84.91	43.1	1.97	79.06	43.2	1.83
May.....	62.75	37.8	1.66	53.80	31.1	1.73	66.64	39.2	1.70	83.61	43.1	1.97	79.50	43.4	1.97	79.17	43.5	1.82
June.....	61.18	38.0	1.61	50.24	32.0	1.57	64.08	38.6	1.66	83.66	43.8	1.91	86.17	43.3	1.99	80.10	44.5	1.80
July.....	63.20	40.0	1.58	55.36	34.6	1.60	65.94	42.0	1.57	86.91	44.8	1.94	89.69	44.4	2.02	82.63	45.4	1.82
Bakery products ⁸																		
Bread and other bakery products																		
Biscuits, crackers, and pretzels																		
Sugar ⁹																		
Cane-sugar refining																		
Beet sugar																		
1955: Average.....	\$70.35	40.9	\$1.72	\$71.03	41.1	\$1.75	\$62.73	39.7	\$1.58	\$77.09	43.8	\$1.76	\$84.12	42.7	\$1.97	\$73.35	42.4	\$1.73
1956: Average.....	75.08	41.6	1.80	74.89	40.7	1.84	66.00	40.0	1.63	79.98	43.0	1.86	86.94	41.8	2.08	78.12	43.4	1.80
July.....	74.21	41.0	1.81	75.85	41.0	1.85	67.08	40.9	1.64	83.36	42.1	1.86	93.01	44.5	2.09	75.66	38.6	1.96
August.....	73.71	40.5	1.82	75.52	40.6	1.86	66.57	40.1	1.66	79.59	40.8	1.85	87.76	42.6	2.06	72.57	37.6	1.93
September.....	74.85	40.9	1.83	76.30	40.8	1.87	68.72	41.4	1.66	82.76	41.8	1.88	92.22	43.5	2.12	77.60	40.0	1.94
October.....	74.30	40.3	1.83	77.11	40.9	1.87	66.40	40.0	1.66	77.83	43.0	1.81	93.95	43.9	2.15	71.88	43.3	1.66
November.....	74.93	40.5	1.84	77.30	40.9	1.89	67.70	39.8	1.67	85.64	49.5	1.73	89.66	41.7	2.12	85.31	49.6	1.72
December.....	73.75	40.3	1.83	75.52	40.6	1.86	66.81	39.3	1.70	83.60	47.5	1.76	86.71	40.9	2.16	85.80	48.2	1.78
1957: January.....	73.23	39.8	1.84	74.99	40.1	1.87	66.18	38.7	1.71	78.80	39.4	2.00	88.78	41.1	2.16	71.23	37.1	1.92
February.....	74.00	40.0	1.85	75.76	40.3	1.88	66.52	38.9	1.71	81.61	40.6	2.01	85.75	39.7	2.16	83.07	42.6	1.95
March.....	73.23	39.8	1.84	75.39	40.1	1.88	65.96	38.8	1.70	83.23	40.8	2.04	88.75	40.9	2.17	79.98	39.4	2.03
April.....	74.37	40.2	1.86	76.55	40.5	1.89	66.69	39.0	1.71	81.16	39.4	2.06	87.64	40.2	2.18	78.39	39.0	2.01
May.....	75.55	40.4	1.87	77.55	40.6	1.91	67.72	39.6	1.71	83.62	40.2	2.08	91.10	41.6	2.19	74.40	37.2	2.00
June.....	76.89	40.9	1.88	78.53	40.9	1.92	70.35	40.9	1.72	82.44	43.4	2.12	102.38	45.3	2.26	81.61	40.2	2.03
July.....	77.11	40.8	1.89	78.94	40.9	1.93	70.07	40.5	1.73	87.57	42.1	2.08	96.79	43.6	2.22	79.77	40.7	1.96
Confectionery and related products ¹⁰																		
Confectionery																		

TABLE C-1. Hours and gross earnings of production workers or nonsupervisory employees¹—Con.

Year and month	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings																											
	Manufacturing—Continued																													
Food and kindred products—Continued																														
Miscellaneous food products ²																														
1955: Average.....	\$67.97	41.7	\$1.63	\$83.16	42.0	\$1.98	\$66.28	45.4	\$1.46	\$51.60	38.8	\$1.33	\$67.30	40.3	\$1.67	\$43.90	37.2	\$1.18												
1956: Average.....	72.92	41.2	1.77	86.53	41.4	2.09	69.71	44.4	1.57	56.41	38.9	1.45	70.88	40.5	1.75	47.63	37.5	1.27												
July.....	72.04	40.7	1.77	80.70	38.8	2.08	71.71	45.1	1.59	58.74	38.9	1.51	73.34	41.1	1.76	47.74	37.3	1.28												
August.....	73.80	41.0	1.80	90.09	41.9	2.15	66.64	43.8	1.79	55.52	39.1	1.72	72.34	41.1	1.76	47.87	37.4	1.28												
September.....	75.17	41.3	1.82	89.62	41.3	2.17	67.76	43.6	1.60	56.20	40.8	1.38	71.98	40.9	1.76	48.77	38.1	1.28												
October.....	74.98	41.2	1.82	92.42	42.2	2.19	68.28	43.3	1.60	54.91	39.5	1.39	70.35	40.2	1.75	49.41	38.3	1.29												
November.....	75.95	41.5	1.83	90.50	41.9	2.16	71.07	43.6	1.63	58.41	38.9	1.45	72.85	40.7	1.79	50.57	38.6	1.31												
December.....	75.40	41.2	1.83	90.03	41.3	2.18	72.61	45.1	1.61	58.90	39.8	1.48	76.08	41.9	1.82	49.92	38.4	1.30												
1957: January.....	75.62	41.1	1.84	89.44	41.6	2.15	71.97	44.7	1.61	57.81	38.8	1.49	73.17	41.3	1.82	48.12	37.3	1.29												
February.....	77.06	41.4	1.86	87.53	40.9	2.14	73.55	45.4	1.62	57.37	38.5	1.49	71.06	39.7	1.79	49.01	37.7	1.30												
March.....	75.03	41.0	1.83	87.10	40.7	2.14	72.58	44.8	1.62	57.99	37.9	1.53	71.28	39.6	1.80	48.10	37.0	1.30												
April.....	74.85	40.9	1.83	86.88	40.6	2.14	72.02	44.8	1.63	57.04	36.8	1.55	67.88	37.5	1.48	47.55	36.3	1.31												
May.....	74.30	40.6	1.83	88.80	41.3	2.15	72.90	45.0	1.62	61.75	39.1	1.58	77.19	41.5	1.86	48.86	37.3	1.31												
June.....	76.36	41.5	1.84	90.69	41.6	2.18	72.70	44.6	1.63	60.99	38.6	1.58	74.50	40.1	1.86	49.63	37.6	1.32												
July.....	78.17	41.8	1.87	94.50	42.4	2.23	75.93	46.3	1.64	63.76	39.6	1.61	81.16	43.4	1.87	47.92	36.3	1.32												
Tobacco manufactures—Continued																														
Tobacco manufactures																														
Textile-mill products																														
Tobacco and snuff																														
Tobacco stemming and redrying																														
Total: Textile-mill products																														
1955: Average.....	\$54.17	37.1	\$1.46	\$42.08	39.7	\$1.06	\$55.74	40.1	\$1.39	\$63.86	41.2	\$1.55	\$50.04	39.4	\$1.27	\$50.04	39.4	\$1.27												
1956: Average.....	57.13	37.1	1.54	47.04	39.2	1.20	57.57	39.7	1.45	66.58	41.6	1.60	52.53	39.2	1.34	52.53	39.2	1.34												
July.....	55.39	36.2	1.53	51.05	38.1	1.34	55.87	38.8	1.44	74.84	44.0	1.61	51.05	38.1	1.34	51.05	38.1	1.34												
August.....	57.44	37.3	1.54	45.98	39.3	1.17	56.45	39.2	1.44	68.48	42.8	1.60	51.86	38.7	1.34	51.86	38.7	1.34												
September.....	58.28	37.6	1.55	49.70	43.6	1.14	56.99	39.3	1.45	66.33	42.1	1.61	51.72	38.6	1.34	51.72	38.6	1.34												
October.....	58.28	37.6	1.55	45.65	40.4	1.13	59.75	40.1	1.49	66.67	40.9	1.63	53.72	39.5	1.36	54.25	39.6	1.37												
November.....	58.68	37.5	1.57	44.01	37.3	1.18	60.30	40.2	1.50	67.16	40.7	1.65	55.46	39.9	1.39	55.00	40.0	1.40												
December.....	60.29	38.4	1.57	48.86	39.4	1.24	60.30	40.2	1.50	67.23	41.5	1.62	54.79	39.7	1.38	55.18	39.7	1.39												
1957: January.....	58.30	36.9	1.58	47.63	38.1	1.25	56.65	39.1	1.50	65.19	41.0	1.59	54.10	39.2	1.38	54.49	39.2	1.39												
February.....	57.56	36.2	1.59	49.15	38.7	1.27	58.80	39.2	1.50	65.83	41.4	1.59	53.82	39.0	1.38	54.21	39.0	1.39												
March.....	57.92	36.2	1.60	49.45	36.9	1.34	58.35	38.9	1.50	62.65	39.4	1.59	52.99	38.4	1.38	52.99	38.4	1.38												
April.....	57.83	35.7	1.62	53.65	37.0	1.45	57.90	38.6	1.50	64.72	40.2	1.61	52.44	38.0	1.38	52.68	37.9	1.39												
May.....	59.98	36.8	1.63	56.36	38.6	1.46	57.60	38.4	1.50	65.92	41.2	1.60	52.68	37.9	1.39	52.54	37.8	1.39												
June.....	61.94	38.0	1.63	54.52	37.6	1.45	58.35	38.9	1.50	68.20	42.1	1.62	52.85	38.3	1.38	53.24	38.3	1.39												
July.....	62.16	37.9	1.64	54.77	38.3	1.43	57.90	38.6	1.50	70.47	42.2	1.67	53.10	38.2	1.39	53.10	38.2	1.39												
Cotton, silk, synthetic fiber																														
Woolen and worsted																														
Thread mills																														
Broad-woven fabric mills ²																														
United States																														
1955: Average.....	\$51.74	39.8	\$1.30	\$54.27	40.5	\$1.34	\$52.79	40.3	\$1.31	\$57.63	40.3	\$1.43	\$51.99	40.3	\$1.29	\$63.38	41.7	\$1.52												
1956: Average.....	53.33	39.5	1.35	56.28	40.2	1.40	54.66	39.9	1.37	58.46	39.5	1.48	54.00	40.0	1.38	65.31	41.6	1.57												
July.....	53.45	39.3	1.36	53.82	39.0	1.38	51.72	33.6	1.34	58.80	39.2	1.50	50.82	38.5	1.32	64.53	41.1	1.57												
August.....	54.25	39.6	1.37	54.23	39.3	1.38	52.65	39.0	1.35	57.37	38.5	1.49	51.61	39.1	1.32	64.37	41.0	1.57												
September.....	53.70	39.2	1.37	55.04	38.6	1.39	53.06	39.3	1.35	57.75	38.5	1.52	52.40	39.4	1.33	64.84	41.3	1.57												
October.....	53.76	38.4	1.40	58.46	40.6	1.44	57.51	40.5	1.42	60.10	39.8	1.51	56.84	40.6	1.40	65.76	41.1	1.60												
November.....	54.24	38.2	1.42	59.42	40.7	1.45	56.49	39.6	1.45	58.54	40.8	1.53	58.36	41.1	1.42	66.16	40.1	1.60												
December.....	56.00	40.0	1.40	59.71	40.9	1.45	58.34	40.8	1.45	61.16	40.5	1.51	58.08	40.9	1.42	66.49	41.3	1.61												
1957: January.....	56.26	39.9	1.41	57.57	39.7	1.45	55.10	38.8	1.42	56.47	37.4	1.51	55.49	39.0	1.41	65.99	41.3	1.61												
February.....	55.30	39.5	1.40	56.70	38.9	1.45	55.34	38.7	1.43	57.61	37.9	1.52	54.71	38.8	1.41	65.92	41.2	1.60												
March.....	55.13	39.1	1.41	56.55	39.0	1.45	55.34	38.8	1.43	57.46	37.8	1.52	54.43	38.6	1.41	65.44	40.9	1.60												
April.....	54.60	39.0	1.40	55.29	38.8	1.45	55.06	38.5	1.45	57.46	37.8	1.52	53.72	38.1	1.41	65.72	41.7	1.60												
May.....	54.88	39.2	1.40	55.97	38.6	1.45	54.10	38.1	1.42	57.61	37.9	1.53	54.00	38.4	1.41	67.20	42.0	1.60												
June.....	54.46	38.9	1.40	56.41	38.9	1.45	54.91	38.4	1.43	59.67	39.0	1.53	54.00	38.4	1.41	67.20	42.0	1.60												
July.....	54.29	38.5	1.41	56.26	38.8	1.45	54.77	38.3	1.43	59.20	39.1	1.53	53.86	38.2	1.41	66.40	41.5	1.61												
Narrow fabrics and small wares																														
Knitting mills ²																														
United States																														
1955: Average.....	\$56.28	40.2	\$1.40	\$50.81	38.2	\$1.33	\$56.54	38.2	\$1.48	\$55.42	37.7	\$1.47	\$56.83	38.4	\$1.48	\$42.80	36.9	\$1.16												
1956: Average.....	58.51	39.8	1.47	53.68	37.8	1.42	58.98	38.3	1.54	58.24	38.8	1.52	59.06	38.1	1.55	46.21	36.1	1.28												
July.....	57.77	39.3	1.47	53.25	37.5	1.42	56.39	37.1	1.52	56.77	38.1	1.49	56.52	36.7	1.54	45.44	35.5	1.28												
August.....	58.31	39.4	1.48	54.10	38.1	1.42	57.53	37.6	1.53	58.67	38.6	1.52	57.13	37.1	1.54	47.09	35.5	1.29												
September.....	59.05	39.9	1.48	54.20	37.9	1.43	57.83	37.8	1.53	59.98																				

TABLE C-1. Hours and gross earnings of production workers or nonsupervisory employees¹—Con.

	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings										
Year and month																		
Manufacturing—Continued																		
Textile-mill products—Continued																		
Seamless hosiery—Continued																		
North																		
South																		
1955: Average.....	\$46.71	38.6	\$1.21	\$42.21	36.7	\$1.15	\$33.76	38.4	\$1.40	\$48.34	39.3	\$1.23	\$65.14	42.3	\$1.54	\$46.87	42.4	\$1.53
1956: Average.....	49.27	37.9	1.30	45.82	35.8	1.28	56.15	38.2	1.47	49.91	38.1	1.31	65.92	41.2	1.60	65.51	41.2	1.59
July.....	49.79	36.6	1.29	44.80	35.0	1.28	57.72	39.0	1.48	48.86	37.3	1.31	64.31	40.7	1.58	63.59	40.5	1.57
August.....	49.79	38.6	1.29	46.57	36.1	1.29	58.31	39.4	1.48	49.28	38.2	1.29	64.78	41.0	1.58	64.37	41.0	1.57
September.....	51.60	38.8	1.33	46.18	35.8	1.29	56.83	38.4	1.48	50.94	38.3	1.23	63.90	40.7	1.57	63.80	40.9	1.56
October.....	52.00	39.1	1.33	45.73	37.2	1.31	58.80	39.2	1.50	49.34	37.1	1.33	65.97	41.8	1.62	69.30	42.0	1.65
November.....	51.07	38.4	1.33	49.24	37.3	1.32	58.05	38.7	1.50	49.82	36.9	1.35	65.53	41.9	1.66	70.55	42.5	1.66
December.....	50.12	37.4	1.34	49.24	37.3	1.32	55.58	37.3	1.49	48.74	36.1	1.35	65.92	41.8	1.66	69.80	42.1	1.66
1957: January.....	50.18	36.9	1.36	47.61	35.8	1.33	53.87	36.4	1.48	48.55	35.7	1.36	65.51	39.9	1.65	65.44	39.9	1.64
February.....	51.51	37.6	1.37	48.35	36.1	1.33	55.45	37.2	1.49	49.87	36.4	1.37	65.15	41.3	1.65	67.85	41.0	1.65
March.....	60.92	36.9	1.38	47.35	35.6	1.33	50.10	37.4	1.50	50.14	36.6	1.37	65.06	41.0	1.66	67.55	41.0	1.65
April.....	50.59	37.1	1.36	46.90	35.1	1.34	55.88	37.5	1.49	51.47	37.3	1.36	67.49	40.9	1.65	67.75	41.4	1.64
May.....	51.17	37.9	1.35	47.48	35.7	1.33	57.00	37.5	1.52	50.05	36.8	1.36	66.83	40.5	1.65	66.09	40.3	1.64
June.....	51.65	38.1	1.34	48.94	36.8	1.33	58.75	38.4	1.53	51.14	37.6	1.36	69.22	41.7	1.66	68.81	41.7	1.65
July.....	52.11	38.6	1.35	47.06	36.2	1.30	59.14	38.4	1.54	51.00	37.5	1.36	65.67	39.8	1.65	64.39	39.5	1.63
Carpets, rugs, other floor coverings ⁴																		
Wool carpets, rugs, and carpet yarn																		
1955: Average.....	\$73.74	41.9	\$1.76	\$71.05	40.6	\$1.75	\$58.03	37.2	\$1.56	\$66.56	41.6	\$1.60	\$73.93	41.3	\$1.79	\$63.91	38.5	\$1.66
1956: Average.....	73.98	41.1	1.80	73.26	40.7	1.80	57.38	35.2	1.63	66.83	40.5	1.65	71.10	40.4	1.76	66.09	38.2	1.73
July.....	71.38	40.1	1.78	71.68	39.6	1.81	58.03	35.6	1.63	64.78	38.5	1.64	67.20	38.4	1.75	66.64	38.3	1.74
August.....	74.46	41.6	1.79	73.44	40.8	1.80	60.09	36.2	1.66	66.40	40.0	1.66	70.27	39.7	1.77	67.23	38.2	1.76
September.....	75.89	41.7	1.82	76.18	41.4	1.84	66.91	34.7	1.64	68.14	40.8	1.67	75.66	41.8	1.81	67.86	39.0	1.74
October.....	76.49	41.8	1.83	75.81	41.2	1.84	53.79	32.8	1.64	70.04	41.2	1.70	78.18	42.8	1.85	68.11	38.7	1.76
November.....	76.31	41.7	1.83	74.55	40.9	1.83	55.61	33.5	1.66	70.28	41.1	1.71	80.09	42.6	1.86	66.02	37.3	1.77
December.....	77.28	42.0	1.84	76.54	41.6	1.84	58.13	34.6	1.68	71.99	42.1	1.71	81.65	43.2	1.89	67.97	38.4	1.77
1957: January.....	76.96	41.6	1.85	77.15	41.7	1.85	53.61	33.3	1.61	69.02	40.6	1.70	77.89	42.1	1.85	67.68	37.6	1.80
February.....	78.26	42.3	1.85	77.52	41.9	1.85	61.15	36.4	1.68	68.85	40.5	1.70	74.74	40.4	1.85	67.28	37.8	1.78
March.....	75.44	41.0	1.84	73.20	40.0	1.83	56.76	34.4	1.65	68.68	40.4	1.70	75.62	41.1	1.84	67.32	37.4	1.80
April.....	74.34	40.4	1.82	74.24	39.8	1.82	54.61	33.3	1.64	67.49	39.7	1.70	71.02	38.6	1.84	67.32	37.4	1.80
May.....	73.05	39.7	1.84	71.16	39.1	1.82	58.48	36.1	1.62	67.15	39.5	1.70	71.23	38.5	1.85	67.37	37.5	1.79
June.....	72.29	39.5	1.83	68.76	38.2	1.80	59.76	36.0	1.66	69.37	40.1	1.73	73.49	39.3	1.87	68.80	37.8	1.82
July.....	72.83	39.8	1.83	69.50	38.4	1.81	59.01	36.2	1.63	69.89	40.4	1.73	72.52	39.2	1.85	69.36	37.9	1.83
Textile-mill products—Continued																		
Apparel and other finished textile products																		
Puddings and upholstery filling																		
Processed waste and recovered fibers																		
1955: Average.....	\$73.44	43.2	\$1.70	\$51.17	41.6	\$1.23	\$88.59	45.9	\$1.93	\$55.58	39.7	\$1.40	\$49.41	36.6	\$1.35	\$59.86	36.5	\$1.64
1956: Average.....	68.85	40.5	1.70	53.97	41.2	1.31	88.00	44.0	2.00	56.99	39.3	1.45	52.64	36.3	1.45	63.12	36.7	1.72
July.....	67.89	39.7	1.71	52.53	40.1	1.31	85.41	43.8	1.95	55.58	38.6	1.44	52.27	35.8	1.46	62.11	35.9	1.73
August.....	68.57	40.1	1.71	52.93	40.1	1.32	87.96	44.2	1.99	55.83	38.5	1.45	54.17	36.6	1.48	65.33	36.7	1.78
September.....	72.56	41.7	1.74	53.33	40.4	1.32	89.89	44.5	2.02	57.82	39.6	1.46	53.28	36.0	1.48	64.97	36.5	1.78
October.....	73.27	42.6	1.72	54.95	40.7	1.35	94.60	45.7	2.07	57.09	39.1	1.46	54.24	36.4	1.49	65.16	36.4	1.79
November.....	72.07	41.9	1.72	56.71	41.7	1.36	93.11	45.2	2.06	57.87	39.1	1.48	53.43	36.1	1.48	64.25	36.3	1.77
December.....	75.50	42.9	1.76	59.60	43.5	1.37	98.70	47.0	2.10	59.60	40.0	1.49	54.45	36.3	1.50	64.78	36.6	1.77
1957: January.....	71.17	40.9	1.74	56.72	41.4	1.37	92.35	44.4	2.08	59.40	39.6	1.48	53.59	35.9	1.49	63.89	36.3	1.76
February.....	72.38	41.6	1.74	57.54	42.0	1.37	86.10	42.0	2.05	59.70	39.8	1.50	54.39	36.5	1.49	64.06	35.4	1.76
March.....	71.45	41.3	1.73	57.55	41.4	1.39	85.27	41.8	2.04	59.85	39.9	1.50	54.75	36.5	1.50	64.05	36.6	1.75
April.....	70.24	40.6	1.73	56.30	40.5	1.39	85.28	41.6	2.05	58.80	39.2	1.50	52.84	35.7	1.48	62.48	35.5	1.76
May.....	69.49	40.4	1.72	57.26	40.9	1.40	86.53	41.8	2.07	57.15	38.1	1.50	52.98	35.8	1.48	63.37	35.8	1.77
June.....	69.95	40.2	1.74	58.66	41.6	1.41	93.07	43.9	2.12	57.68	38.2	1.51	53.39	35.8	1.49	64.08	35.8	1.79
July.....	71.46	40.6	1.76	59.08	41.9	1.41	96.09	44.9	2.14	57.83	38.3	1.51	54.30	36.2	1.50	64.61	36.3	1.78
Men's and boys' furnishings and work clothing ⁴																		
Shirts, collars, and nightwear																		
Separate trousers																		
Work shirts																		
Women's outerwear ⁴																		
Women's dresses																		
1955: Average.....	\$41.92	37.1	\$1.13	\$42.29	37.1	\$1.14	\$43.52	37.2	\$1.17	\$36.29	37.8	\$0.96	\$32.90	35.5	\$1.49	\$33.40	35.6	\$1.50
1956: Average.....	45.26	36.5	1.24	45.51	36.7	1.24	46.49	36.9	1.26	39.82	36.2	1.10	57.02	35.2	1.62	55.62	35.2	1.58
July.....	44.88	35.9	1.25	44.89	36.2	1.24	46.75	37.1	1.26	39.96	36.0	1.11	57.40	35.0</td				

TABLE C-1. Hours and gross earnings of production workers or nonsupervisory employees¹—Con.

Year and month	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings			
	Manufacturing—Continued																	
Apparel and other finished textile products—Continued																		
<i>Household apparel</i>			<i>Women's suits, coats, and skirts</i>			<i>Women's and chil- dren's undergarments⁴</i>			<i>Underwear and night- wear, except corsets</i>			<i>Corsets and allied garments</i>			<i>Millinery</i>			
1955: Average.....	\$40.52	36.5	\$1.11	\$64.27	33.3	\$1.93	\$44.77	36.7	\$1.22	\$42.44	36.9	\$1.15	\$48.78	36.4	\$1.34	\$56.99	36.3	\$1.57
1955: Average.....	48.76	36.1	1.24	68.14	33.9	2.01	47.55	36.3	1.31	45.50	36.4	1.25	51.77	36.2	1.43	61.85	36.6	1.69
July.....	43.88	33.1	1.28	73.03	35.8	2.04	46.41	35.7	1.30	44.63	35.7	1.25	50.69	35.7	1.42	61.75	35.9	1.72
August.....	45.11	35.8	1.26	73.19	35.7	2.05	47.68	36.4	1.31	46.12	36.6	1.26	51.62	36.1	1.43	61.13	37.8	1.67
September.....	43.56	34.3	1.27	68.13	32.6	2.09	49.08	36.9	1.33	47.62	37.2	1.28	52.13	36.2	1.44	61.61	38.5	1.73
October.....	44.58	35.1	1.27	69.63	33.8	2.06	49.49	37.4	1.35	49.14	37.8	1.30	53.07	36.6	1.45	67.20	39.3	1.71
November.....	45.97	36.2	1.27	65.27	32.8	2.09	49.48	37.2	1.33	48.00	37.5	1.28	52.82	36.8	1.45	61.03	35.9	1.68
December.....	47.74	37.3	1.28	68.74	34.2	2.01	48.81	36.3	1.34	47.94	36.8	1.29	52.85	36.2	1.46	63.00	36.0	1.70
1957: January.....	46.08	36.0	1.28	62.42	34.4	2.05	48.28	36.3	1.33	45.85	36.4	1.27	52.64	36.3	1.45	69.27	38.7	1.79
February.....	46.83	36.9	1.29	70.45	34.2	2.06	49.21	37.0	1.33	47.40	37.0	1.27	52.85	36.2	1.46	72.98	40.1	1.82
March.....	48.23	37.1	1.30	68.68	33.5	2.05	49.45	36.9	1.34	47.62	37.2	1.28	52.85	36.2	1.46	57.07	34.3	1.68
April.....	48.10	37.0	1.30	59.87	30.7	1.95	47.70	35.6	1.34	45.95	35.9	1.28	51.90	33.1	1.47	57.50	34.3	1.68
May.....	47.97	36.9	1.30	63.70	32.5	1.97	47.57	35.1	1.34	45.70	35.7	1.28	51.74	33.2	1.47	51.15	31.0	1.65
June.....	45.50	35.0	1.30	65.73	32.7	2.01	48.11	35.9	1.34	45.95	35.9	1.28	52.41	35.9	1.46	54.94	32.9	1.67
July.....	45.06	35.2	1.28	75.12	35.6	2.11	48.01	36.1	1.33	46.46	36.3	1.28	51.62	35.6	1.45	60.16	35.6	1.69
Children's outerwear	<i>Miscellaneous apparel and accessories</i>			<i>Other fabricated textile products⁴</i>			<i>Curtains, draperies, and other housefurnish- ings</i>			<i>Textile bags</i>			<i>Census products</i>					
1955: Average.....	\$45.38	37.2	\$1.22	\$45.63	37.1	\$1.23	\$51.32	38.3	\$1.34	\$45.72	38.1	\$1.20	\$53.65	38.6	\$1.39	\$53.58	39.4	\$1.36
1955: Average.....	48.31	36.6	1.32	49.71	37.1	1.34	53.53	37.7	1.42	46.96	36.7	1.28	57.28	38.5	1.45	55.66	39.2	1.42
July.....	49.18	36.7	1.34	49.08	36.9	1.33	52.82	37.2	1.42	45.67	35.4	1.29	57.92	39.4	1.47	57.03	40.3	1.43
August.....	49.45	36.9	1.34	50.96	37.4	1.36	53.16	37.7	1.41	48.38	37.5	1.29	58.90	39.8	1.48	56.34	39.4	1.43
September.....	48.33	35.8	1.35	51.24	37.4	1.37	54.10	38.1	1.42	48.64	38.0	1.28	59.05	39.9	1.48	54.81	38.6	1.42
October.....	49.55	37.0	1.34	52.30	37.9	1.38	56.12	37.8	1.45	50.31	39.0	1.29	58.95	40.1	1.47	56.41	38.9	1.45
November.....	49.41	36.8	1.33	50.37	36.5	1.38	56.36	38.3	1.47	48.62	37.4	1.29	57.09	39.1	1.46	54.50	38.4	1.42
December.....	50.14	36.4	1.35	51.15	36.2	1.36	57.22	38.4	1.49	49.16	37.0	1.29	59.64	40.3	1.48	56.06	39.2	1.43
1957: January.....	50.53	36.9	1.37	49.23	36.2	1.36	55.35	37.1	1.48	47.55	36.5	1.29	56.99	39.3	1.45	56.99	39.3	1.45
February.....	51.27	37.7	1.38	50.73	36.3	1.37	55.86	38.0	1.47	48.86	37.3	1.31	59.35	40.1	1.48	55.20	38.6	1.43
March.....	50.86	37.4	1.38	49.27	35.7	1.38	55.42	37.7	1.47	49.52	37.8	1.31	57.72	39.0	1.48	56.06	39.2	1.43
April.....	49.28	36.3	1.33	48.37	34.8	1.39	54.54	37.1	1.47	48.86	37.3	1.31	56.74	38.6	1.47	55.34	39.1	1.43
May.....	49.41	36.6	1.35	48.16	34.4	1.39	55.73	38.4	1.49	46.46	38.5	1.31	57.30	38.9	1.50	56.59	40.2	1.47
June.....	51.61	37.4	1.38	49.63	35.2	1.41	57.23	37.9	1.51	47.92	36.3	1.32	59.40	39.6	1.50	59.09	40.2	1.47
July.....	52.44	38.0	1.38	50.04	36.0	1.39	57.15	37.6	1.52	48.34	36.9	1.31	60.50	39.8	1.52	59.35	40.1	1.48
Lumber and wood products (except furniture)																		
<i>Total: Lumber and wood products (ex- cept furniture)</i>			<i>Sawmills and plan- ing mills⁴</i>			<i>Sawmills and planing mills, general</i>									<i>Millwork, plywood, and prefabricated structural wood products⁴</i>			
						<i>United States</i>			<i>South</i>			<i>West</i>						
1955: Average.....	\$68.88	41.0	\$1.68	\$69.55	41.4	\$1.68	\$70.38	41.4	\$1.70	\$46.76	43.7	\$1.07	\$88.43	39.5	\$2.25	\$73.99	41.8	\$1.77
1955: Average.....	70.93	40.3	1.76	71.51	40.4	1.77	72.54	40.3	1.80	49.09	41.6	1.18	90.87	39.9	2.33	74.30	40.6	1.83
July.....	72.36	40.2	1.80	73.35	40.3	1.82	74.15	40.3	1.84	49.68	41.4	1.20	92.51	39.2	2.36	74.34	40.4	1.84
August.....	75.12	41.5	1.81	74.80	41.1	1.82	76.22	41.2	1.85	50.52	42.1	1.20	95.51	40.3	2.37	75.26	40.9	1.84
September.....	74.03	40.9	1.81	73.71	40.5	1.82	74.93	40.5	1.85	50.52	42.1	1.20	92.90	39.2	2.37	74.70	40.6	1.84
October.....	73.03	40.8	1.79	72.90	40.5	1.80	74.12	40.5	1.83	50.16	41.8	1.20	91.73	39.2	2.34	73.75	40.3	1.83
November.....	70.80	40.0	1.77	71.20	40.0	1.78	72.22	39.9	1.81	49.80	41.5	1.20	90.64	38.9	2.33	73.02	39.9	1.83
December.....	69.25	39.8	1.74	69.13	39.5	1.78	69.95	39.3	1.78	49.56	40.5	1.20	86.16	37.3	2.31	75.11	40.6	1.85
1957: January.....	67.25	39.1	1.72	66.95	38.7	1.73	67.94	38.6	1.76	48.00	40.0	1.20	84.04	36.7	2.29	73.63	39.8	1.85
February.....	68.51	39.6	1.73	68.21	39.2	1.74	69.19	39.1	1.77	48.12	40.1	1.20	85.18	37.8	2.28	74.00	40.0	1.85
March.....	70.27	39.7	1.77	69.74	39.4	1.77	70.53	39.4	1.79	48.52	40.1	1.21	87.78	38.5	2.28	71.97	38.9	1.85
April.....	72.00	40.0	1.80	70.67	39.7	1.78	71.56	39.1	1.81	48.44	40.2	1.21	89.31	39.0	2.28	74.40	40.0	1.86
May.....	73.16	40.2	1.82	72.00	40.4	1.80	73.20	40.0	1.83	50.26	41.2	1.22	90.25	38.8	2.32	75.73	40.6	1.89
June.....	74.89	40.7	1.84	73.42	39.9	1.81	74.40	40.0	1.86	49.25	40.7	1.21	91.89	39.1	2.35	77.71	40.9	1.90
July.....	71.89	39.5	1.82	70.41	38.9	1.81	71.19	38.9	1.83	49.01	40.5	1.21	85.98	36.9	2.33	75.79	40.1	1.89
<i>Millwork</i>			<i>Plywood</i>			<i>Wooden containers⁴</i>			<i>Wooden boxes, other than cigar</i>			<i>Miscellaneous wood products</i>			<i>Furniture and fixtures</i>			
1955: Average.....	\$72.56	41.7	\$1.74	\$78.37	43.3	\$1.81	\$52.48	41.0	\$1.28	\$53.12	41.5	\$1.28	\$57.82	41.6	\$1.39	\$67.07	41.4	\$1.62
1955: Average.....	72.90	40.5	1.80	76.22	41.2	1.85	56.71	40.8	1.39	56.58	41.0	1.38	60.15	41.2	1.46	65.95	40.8	1.69
July.....	73.53	40.4	1.82	74.52	40.5	1.84	57.53	40.8	1.41	57.40	41.0	1.40	63.63	40.9	1.48	67.54	40.2	1.68
August.....	74.44	40.9	1.82	75.99	41.3	1.84	57.92	40.5	1.43	57.11	40.5	1.41	60.27	41.0	1.47	69.87	41.1	1.70
September.....	74.70	40.6	1.84	74.85	40.9	1.83	57.92	40.5	1.43	57.94	40.8	1.42	61.57	41.6	1.48	71.04	41.3	1.72
October.....	73.35	40.3	1.82	73.71	40.5	1.82	58.50	41.2	1.42	57.95	41.1	1.41	61.80	41.2	1.50	71.97	41.6	1.73
November.....	72.98	40.1	1.82	73.02	39.9	1.83	56.14	40.1	1.40	56.03	40.6	1.38	59.70	41.2	1.49	69.66	40.5	1.72
December.....	73.93	40.4	1.83	75.67	40.9	1.85	57.53	40.8	1.41	56.30	40.5	1.39	61.39	41.2	1.49	71.45	41.3	1.73
1957: January.....	72.65	39.7	1.83	74.37	40.2	1.85	55.72	39.8	1.40	55.18	39.7	1.39	60.05	40.3	1.49	68.46	39.8	1.72
February.....	72.86	39.6	1.84	76.07	40.9	1.86	55.30	39.5	1.40	55.04	39.6	1.39	60.94	40.9	1.49			

TABLE C-1. Hours and gross earnings of production workers or nonsupervisory employees¹—Con.

Year and month	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings															
Manufacturing—Continued																		
Furniture and fixtures																		
Household furniture ²																		
Wood household furniture (except upholstered)																		
1955: Average.....	\$64.17	41.4	\$1.55	\$58.24	42.2	\$1.38	\$69.19	40.7	\$1.70	\$71.58	40.9	\$1.75	\$75.78	42.1	\$1.80	\$65.10	42.0	\$1.55
1956: Average.....	65.77	40.6	1.62	59.20	41.4	1.43	71.82	39.9	1.80	72.10	39.4	1.83	79.42	41.8	1.90	71.21	42.9	1.66
July.....	63.68	39.8	1.60	57.79	40.7	1.42	66.55	37.6	1.77	72.36	40.2	1.80	78.66	41.4	1.90	67.39	41.6	1.62
August.....	66.10	40.8	1.62	59.06	41.3	1.43	71.06	39.7	1.79	76.13	41.6	1.83	80.41	42.1	1.91	70.79	42.9	1.65
September.....	67.90	41.4	1.64	60.61	41.8	1.45	74.80	41.1	1.82	77.19	41.5	1.86	77.71	40.9	1.90	71.31	42.7	1.67
October.....	68.64	41.6	1.65	61.76	42.3	1.46	75.95	41.5	1.83	75.92	40.6	1.87	80.83	42.1	1.92	69.76	42.8	1.63
November.....	69.42	40.5	1.64	60.15	41.2	1.46	74.62	41.0	1.82	71.81	38.4	1.87	79.52	41.2	1.93	68.83	41.0	1.63
December.....	68.56	41.3	1.66	61.45	41.8	1.47	77.93	41.9	1.86	73.68	39.4	1.87	82.91	42.3	1.96	70.46	42.7	1.65
1957: January.....	64.78	39.5	1.64	58.84	40.3	1.46	68.58	38.1	1.80	72.94	38.8	1.88	78.55	40.7	1.93	67.20	42.0	1.60
February.....	66.00	40.0	1.65	58.98	40.4	1.46	72.86	39.6	1.84	73.32	39.0	1.88	79.13	41.0	1.93	67.62	42.0	1.61
March.....	66.40	40.0	1.66	59.39	40.4	1.47	73.97	40.2	1.84	71.61	38.5	1.88	79.73	41.1	1.94	65.83	41.4	1.59
April.....	65.01	39.4	1.65	58.80	40.0	1.47	71.92	39.3	1.83	68.45	37.2	1.84	77.78	40.3	1.93	64.06	40.8	1.57
May.....	64.02	38.8	1.65	58.61	39.6	1.48	67.51	37.3	1.81	72.37	38.7	1.87	77.79	40.1	1.94	63.04	39.9	1.58
June.....	65.74	39.6	1.66	59.20	40.0	1.48	71.00	38.8	1.83	76.97	40.3	1.91	77.22	39.6	1.95	64.94	41.1	1.58
July.....	64.52	39.1	1.65	58.07	39.5	1.47	68.22	37.9	1.80	76.55	40.5	1.89	74.88	38.6	1.94	63.18	40.5	1.56
Furniture and fixtures—Continued																		
Paper and allied products																		
Metal office furniture																		
Screens, blinds, and miscellaneous furni- ture and fixtures																		
1955: Average.....	\$83.98	42.2	\$1.96	\$80.78	40.8	\$1.98	\$85.67	41.3	\$1.59	\$78.60	43.0	\$1.83	\$88.94	44.3	\$1.94	\$73.85	42.2	\$1.75
1956: Average.....	86.94	42.0	2.09	84.05	41.0	2.05	86.42	40.5	1.64	83.03	42.8	1.94	91.05	44.2	2.06	76.13	41.6	1.83
July.....	85.69	41.0	2.09	84.05	41.0	2.05	86.26	40.9	1.62	84.28	40.1	1.96	91.21	44.6	2.09	75.62	41.1	1.84
August.....	85.23	41.0	2.08	88.62	42.2	2.10	86.18	40.6	1.63	83.50	42.6	1.97	92.02	45.3	2.10	75.78	41.5	1.85
September.....	80.94	38.1	2.07	87.15	41.2	2.00	86.99	40.3	1.60	83.09	40.3	1.97	88.05	44.1	2.11	78.68	42.3	1.86
October.....	89.88	42.0	2.11	87.78	41.8	2.01	86.40	40.0	1.65	84.94	41.8	1.98	88.28	44.0	2.12	78.50	42.4	1.86
November.....	88.81	41.5	2.14	84.44	41.4	2.06	84.01	39.9	1.65	84.55	42.7	1.98	92.66	43.0	2.18	78.31	41.3	1.86
December.....	92.45	42.6	2.18	87.70	41.2	2.08	88.11	40.3	1.66	85.77	41.0	1.99	94.45	44.2	2.12	78.54	42.0	1.87
1957: January.....	87.22	40.8	2.15	82.32	41.3	2.09	85.40	40.4	1.66	84.18	42.3	1.99	93.07	43.9	2.12	76.48	40.9	1.87
February.....	86.86	40.5	2.15	84.66	40.9	2.07	86.53	39.6	1.66	84.60	42.3	2.00	88.47	42.3	2.13	77.49	41.0	1.89
March.....	86.65	40.3	2.15	84.69	41.0	2.09	87.77	40.1	1.69	84.60	42.3	2.00	86.65	43.5	2.13	78.28	41.2	1.90
April.....	84.10	39.3	2.14	84.23	40.3	2.09	86.04	40.5	1.68	84.20	42.1	2.00	92.44	43.4	2.13	77.71	40.9	1.90
May.....	84.07	39.1	2.15	85.24	40.4	2.11	87.26	39.8	1.69	84.42	42.0	2.01	92.23	43.3	2.13	77.74	40.7	1.91
June.....	80.63	37.5	2.15	86.05	40.4	2.13	88.00	40.0	1.70	85.67	42.2	2.03	93.53	43.1	2.17	80.10	41.5	1.93
July.....	78.91	36.7	2.15	85.60	40.0	2.14	87.72	39.6	1.71	87.14	42.3	2.06	95.70	43.5	2.20	80.73	41.4	1.95
Paper and allied products—Continued																		
Printing, publishing, and allied industries																		
Paperboard boxes																		
Fiber cans, tubes, and drums																		
1955: Average.....	\$73.60	42.3	\$1.74	\$77.30	40.9	\$1.89	\$80.97	41.4	\$1.69	\$91.42	38.9	\$2.25	\$96.65	36.2	\$2.67	\$92.97	39.9	\$2.33
1956: Average.....	75.89	41.7	1.82	70.37	40.7	1.95	72.92	41.2	1.77	94.28	38.8	2.43	99.64	36.1	2.76	96.16	39.9	2.41
July.....	75.76	41.4	1.83	75.66	39.2	1.93	73.87	41.5	1.78	93.80	38.6	2.43	98.73	35.9	2.75	95.60	40.0	2.39
August.....	75.54	41.6	1.84	77.95	40.6	1.92	73.16	41.1	1.78	94.28	38.8	2.43	99.08	35.9	2.76	100.77	41.3	2.44
September.....	78.63	42.5	1.85	79.38	40.5	1.96	73.93	41.3	1.79	95.94	39.0	2.46	100.24	35.8	2.80	102.41	40.8	2.51
October.....	75.63	42.5	1.85	81.36	41.3	1.97	74.21	41.0	1.81	95.80	39.1	2.45	101.36	36.2	2.80	102.56	40.7	2.52
November.....	77.65	42.2	1.84	83.42	41.5	2.01	74.57	41.2	1.81	94.57	38.6	2.45	102.28	36.4	2.81	96.92	39.4	2.46
December.....	77.86	42.1	1.85	82.61	41.1	2.01	75.35	41.4	1.82	96.19	39.1	2.46	103.21	36.6	2.82	93.30	39.7	2.35
1957: January.....	76.45	41.1	1.86	78.21	39.3	1.99	74.45	40.7	1.83	94.22	38.3	2.46	97.86	38.2	2.78	95.68	39.7	2.41
February.....	76.86	41.1	1.87	81.20	40.2	2.02	75.03	41.0	1.83	95.48	38.5	2.48	98.84	38.3	2.80	99.60	40.0	2.49
March.....	77.64	41.3	1.88	81.61	40.2	2.03	74.85	40.9	1.83	96.61	38.8	2.49	99.76	35.5	2.81	99.75	39.9	2.50
April.....	77.08	41.0	1.88	82.42	40.4	2.04	75.07	40.8	1.84	95.87	38.5	2.48	98.49	38.4	2.81	101.03	35.7	2.54
May.....	77.11	40.8	1.89	81.80	39.9	2.05	74.89	40.7	1.84	96.38	38.4	2.51	102.25	36.1	2.82	96.47	38.9	2.48
June.....	79.46	41.6	1.91	84.87	41.0	2.07	75.85	41.0	1.85	96.38	38.4	2.51	102.96	36.0	2.82	97.71	39.4	2.48
July.....	80.70	41.6	1.94	80.77	39.4	2.05	76.67	41.0	1.87	95.88	38.2	2.51	100.54	35.4	2.84	100.25	36.0	2.50
Books																		
Commercial printing																		
Lithographing																		
Greeting cards																		
Bookbinding and related industries																		
Miscellaneous pub- lishing and printing services																		
1955: Average.....	\$80.40	40.6	\$2.01	\$90.23	40.1	\$2.25	\$91.66	40.2	\$2.28	\$95.68	38.3	\$1.48	\$70.00	36.6	\$1.77	\$109.05	39.8	\$2.74
1956: Average.....	83.84	40.5	2.07	93.08	40.1	2.22	94.16	39.9	2.36	95.15	38.5	2.42	92.10	39.4	1.88	109.09	39.1	2.79
July.....	83.61	40.1	2.09	92.73	39.8	2.33	96.56	40.4	2.39	92.69	38.7	2.42	93.21	39.4	1.88	109.52	39.0	2.80
August.....	83.48	40.9	2.09	92.57	39.9	2.32	96.56	40.4	2.39	93.60	38.6	2.42</td						

TABLE C-1. Hours and gross earnings of production workers or nonsupervisory employees¹—Con.

Year and month	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings
	Manufacturing—Continued														
	Chemicals and allied products														
Total: Chemicals and allied products	Industrial inorganic chemicals ⁴			Alkalies and chlorine			Industrial organic chemicals ⁴			Plastics, except synthetic rubber			Synthetic rubber		
1955: Average.....	\$82.39	41.4	\$1.99	\$80.98	40.9	\$2.20	\$87.67	40.4	\$2.17	\$87.33	41.0	\$2.13	\$88.41	42.3	\$2.09
1956: Average.....	87.14	41.3	2.11	95.12	41.0	2.32	93.20	40.7	2.29	93.89	41.1	2.26	93.88	42.1	2.23
July.....	87.76	41.2	2.13	94.42	40.7	2.32	92.92	40.4	2.30	93.71	41.1	2.28	93.68	42.2	2.22
August.....	87.74	41.0	2.14	95.94	41.0	2.34	95.30	40.9	2.33	94.92	40.8	2.28	95.60	42.3	2.26
September.....	88.60	41.4	2.14	98.53	41.4	2.38	95.94	41.0	2.34	94.53	41.1	2.30	95.91	41.7	2.30
October.....	88.60	41.4	2.14	97.17	41.0	2.37	95.06	40.8	2.33	93.89	41.0	2.29	95.42	42.1	2.27
November.....	89.23	41.5	2.15	97.00	41.1	2.36	94.50	40.5	2.32	94.76	41.2	2.30	97.44	42.0	2.32
December.....	89.86	41.6	2.16	98.12	41.4	2.37	95.94	41.0	2.34	94.40	41.3	2.31	98.09	42.1	2.31
1957: January.....	89.21	41.3	2.16	96.93	40.9	2.37	94.37	40.5	2.33	94.94	41.1	2.31	96.56	41.8	2.31
February.....	89.40	41.2	2.17	97.94	40.9	2.38	95.71	40.9	2.34	94.89	40.6	2.32	97.21	41.9	2.32
March.....	89.40	41.2	2.17	97.51	40.8	2.38	95.24	40.7	2.34	94.30	40.6	2.33	98.28	42.0	2.34
April.....	89.40	41.2	2.17	97.99	40.8	2.39	95.65	40.7	2.35	95.30	40.9	2.33	97.86	42.0	2.33
May.....	90.64	41.2	2.20	98.33	40.8	2.41	96.41	40.6	2.35	96.35	41.0	2.33	98.41	41.7	2.36
June.....	91.88	41.2	2.23	99.63	41.0	2.43	96.80	40.5	2.39	97.82	41.1	2.38	99.60	41.5	2.40
July.....	92.25	41.0	2.25	100.69	40.6	2.48	98.74	40.3	2.45	97.92	40.8	2.40	100.60	41.4	2.43
Synthetic fibers	Explosives			Drugs and medicines			Soap, cleaning and polishing preparations ⁴			Soap and glycerin			Paints, pigments, and fillers ⁴		
1955: Average.....	\$75.36	40.3	\$1.87	\$81.40	40.1	\$2.03	\$75.07	40.8	\$1.84	\$85.07	40.9	\$2.08	\$91.88	40.3	\$2.28
1956: Average.....	77.81	39.9	1.95	87.08	40.5	2.15	78.55	40.7	1.93	90.84	41.2	2.20	98.16	40.9	2.40
July.....	79.20	39.8	1.99	86.18	39.9	2.16	78.57	40.5	1.94	91.49	41.4	2.21	100.19	41.4	2.42
August.....	77.22	39.4	1.96	86.62	40.1	2.16	78.20	40.1	1.95	91.08	41.6	2.20	98.88	41.2	2.40
September.....	79.19	40.2	1.97	89.57	40.9	2.19	79.17	40.6	1.95	91.72	41.5	2.21	99.12	41.3	2.40
October.....	78.20	39.9	1.96	89.38	41.0	2.18	79.98	40.6	1.97	90.61	41.0	2.21	98.33	40.8	2.41
November.....	78.99	40.3	1.96	91.30	41.5	2.20	80.78	40.8	1.98	91.65	41.1	2.23	99.39	40.9	2.43
December.....	79.38	40.5	1.96	91.96	41.8	2.20	81.19	40.8	1.99	91.93	41.3	2.25	100.28	41.1	2.44
1957: January.....	79.79	40.5	1.97	91.05	41.2	2.21	81.60	40.8	2.00	94.16	41.3	2.28	102.92	41.5	2.48
February.....	80.00	40.2	1.99	91.24	41.1	2.22	82.00	41.0	2.00	93.94	41.2	2.28	101.03	41.1	2.48
March.....	79.60	40.0	1.99	92.29	41.2	2.24	82.01	40.8	2.01	94.04	41.5	2.29	102.84	41.3	2.49
April.....	80.80	40.4	2.00	92.25	41.0	2.25	81.61	40.4	2.02	94.30	41.0	2.30	102.66	40.9	2.51
May.....	81.61	40.4	2.02	94.89	41.8	2.27	82.01	40.4	2.03	94.19	40.6	2.32	102.97	40.7	2.53
June.....	83.03	40.5	2.05	93.94	41.2	2.28	82.62	40.7	2.03	96.41	41.2	2.34	105.06	41.2	2.55
July.....	83.02	40.3	2.06	95.22	41.4	2.30	83.23	40.8	2.04	95.47	40.8	2.34	103.89	40.9	2.54
Gum, varnishes, lacquers, and enamels	Gum and wood chemicals			Fertilizers			Vegetable animal oils and fats ⁴			Vegetable oils			Animal oils and fats ⁴		
1955: Average.....	\$82.29	42.2	\$1.95	\$71.98	43.1	\$1.67	\$63.90	42.6	\$1.50	\$71.14	45.6	\$1.56	\$65.07	45.5	\$1.43
1956: Average.....	84.04	41.4	2.03	75.33	42.8	1.76	67.68	42.3	1.60	74.42	45.1	1.65	67.95	45.0	1.51
July.....	83.63	41.4	2.02	77.70	43.9	1.77	69.30	42.0	1.65	77.53	44.3	1.75	70.36	42.9	1.64
August.....	84.06	41.5	2.04	76.68	42.6	1.80	65.04	39.9	1.63	75.69	43.5	1.74	68.10	42.3	1.61
September.....	85.49	41.5	2.06	77.15	43.1	1.79	67.82	41.1	1.65	74.68	46.1	1.62	78.89	45.6	1.46
October.....	86.32	41.7	2.07	77.15	43.1	1.79	68.39	41.7	1.64	75.96	46.6	1.63	70.74	47.8	1.48
November.....	85.70	41.4	2.07	76.01	42.7	1.78	68.81	41.7	1.65	75.82	46.8	1.62	69.67	47.6	1.47
December.....	86.11	41.4	2.08	76.08	42.5	1.79	70.72	42.6	1.66	75.33	46.5	1.62	69.24	47.1	1.47
1957: January.....	85.28	41.0	2.08	77.25	43.4	1.78	70.22	42.3	1.66	75.24	45.6	1.65	69.60	46.4	1.50
February.....	85.69	41.0	2.09	76.32	42.4	1.80	69.63	42.2	1.65	75.10	44.7	1.68	68.40	45.3	1.51
March.....	85.06	40.7	2.09	75.60	42.0	1.80	70.91	43.5	1.63	76.64	44.3	1.73	69.26	44.4	1.56
April.....	86.93	41.2	2.11	77.35	42.5	1.82	70.63	43.6	1.62	76.74	43.6	1.76	69.17	43.5	1.59
May.....	86.92	41.0	2.12	79.49	43.2	1.84	75.04	44.4	1.69	78.55	43.4	1.71	71.05	42.8	1.66
June.....	86.61	41.6	2.13	78.07	42.2	1.85	71.06	41.8	1.70	80.78	43.9	1.84	73.53	43.0	1.71
July.....	89.02	41.6	2.14	79.61	42.8	1.86	72.14	41.7	1.73	82.47	44.1	1.87	75.93	42.9	1.77
Chemicals and allied products—Continued	Products of petroleum and coal														
Miscellaneous chemicals ⁴	Essential oils, perfumes, cosmetics			Compressed and liquefied gases			Total: Products of petroleum and coal	Petroleum refining			Coke, other petroleum, and coal products				
1955: Average.....	\$75.48	40.8	\$1.85	\$63.18	39.0	\$1.62	\$87.72	43.0	\$2.04	\$97.00	41.1	\$2.36	\$100.37	40.8	\$2.46
1956: Average.....	80.38	40.8	1.97	66.47	39.1	1.70	90.09	42.1	2.14	104.39	41.1	2.54	108.39	40.9	2.65
July.....	79.79	40.5	1.97	65.11	38.3	1.70	89.88	42.0	2.14	104.81	41.8	2.56	111.22	41.5	2.68
August.....	79.58	40.6	1.96	65.86	39.2	1.68	89.45	41.8	2.14	103.89	40.9	2.54	107.73	40.5	2.66
September.....	81.19	40.8	1.99	66.13	38.9	1.70	92.23	42.5	2.17	108.00	41.7	2.59	111.78	41.4	2.70
October.....	81.20	40.6	2.00	67.09	39.7	1.69	91.54	41.8	2.19	104.86	40.8	2.57	108.14	40.5	2.67
November.....	82.81	41.2	2.01	68.97	40.1	1.72	94.35	42.5	2.22	105.11	40.9	2.57	109.20	40.9	2.67
December.....	83.84	41.3	2.03	70.93	40.3	1.76	94.13	42.4	2.22	105.37	41.0	2.57	109.74	41.1	2.67
1957: January.....	82.42	40.4	2.04	66.99	38.5	1.74	94.08	42.0	2.24	106.45	41.1	2.59	110.68	41.3	2.68
February.....	83.03	40.9	2.03	67.25	39.1	1.72	95.18	42.3	2.25	104.45	40.8	2.56	107.86	40.7	2.65
March.....	83.23	40.8	2.04	68.03	39.1	1.74	94.50	42.0	2.25	104.60	40.7	2.57	108.26	40.7	2.66
April.....	83.03	40.7	2.04	68.78	39.3	1.75	95.37	42.2	2.26	106.71	41.2	2.59	110.55	41.4	2.68
May.....	83.22	40.4	2.06	68.64	39.0	1.76	94.81	41.4	2.29	106.29	40.9	2.61	110.84	40.9	2.71
June.....	84.03	40.4	2.08	69.45	38.8	1.79	96.83	42.1	2.30	104.79	40.9	2.66	113.70	41.2	2.78
July.....	83.82	40.3	2.08	68.46	38.9	1.76	96.33	41.7	2.31	111.90	41.6	2.69	115.51	41.4	2.79

See footnotes at end of table.

TABLE C-1. Hours and gross earnings of production workers or nonsupervisory employees¹—Con.

Year and month	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings										
Manufacturing—Continued																		
Rubber products																		
Tires and inner tubes																		
Rubber footwear																		
Other rubber products																		
Leather and leather products																		
Total: Leather and leather products																		
Leather: tanned, curried, and finished																		
1955: Average.....	\$87.15	41.7	\$2.09	\$101.09	41.6	\$2.43	\$70.70	40.4	\$1.75	\$78.35	41.9	\$1.87	\$33.44	37.9	\$1.41	\$72.40	40.0	\$1.81
1956: Average.....	87.23	40.2	2.17	100.95	39.9	2.53	71.89	39.5	1.82	78.96	40.7	1.94	56.02	37.6	1.49	74.24	39.7	1.87
July.....	85.75	39.7	2.16	99.14	39.5	2.51	71.28	39.6	1.80	77.78	40.3	1.93	56.52	38.8	1.49	73.49	39.3	1.87
August.....	87.62	40.2	2.17	101.95	40.0	2.53	70.39	39.3	1.79	78.76	40.6	1.94	56.51	37.6	1.50	74.26	39.5	1.88
September.....	88.10	40.5	2.20	102.51	40.2	2.55	71.71	39.4	1.82	81.18	41.0	1.94	56.28	36.9	1.51	75.03	39.4	1.89
October.....	80.98	40.0	2.20	102.66	40.6	2.56	71.71	39.4	1.82	82.08	41.1	1.99	55.72	36.9	1.51	74.86	39.4	1.90
November.....	87.89	40.5	2.17	103.53	40.6	2.55	71.55	39.1	1.83	79.68	40.6	1.97	56.09	36.9	1.52	75.64	39.6	1.91
December.....	92.74	41.4	2.24	103.25	41.7	2.62	70.25	36.6	1.85	82.59	41.5	1.99	57.30	37.7	1.62	76.42	39.8	1.92
1957: January.....	91.21	40.9	2.23	107.64	41.4	2.60	71.79	39.0	1.84	81.39	40.9	1.99	57.76	38.0	1.52	75.55	39.4	1.92
February.....	90.80	40.9	2.22	106.19	41.0	2.59	72.10	36.4	1.83	81.18	41.0	1.98	58.60	38.3	1.53	75.65	39.4	1.92
March.....	89.28	40.4	2.21	102.40	40.0	2.56	72.68	36.5	1.84	81.19	40.8	1.99	58.52	38.0	1.54	76.26	39.6	1.92
April.....	87.60	40.0	2.19	103.46	40.1	2.58	70.64	36.6	1.83	79.60	40.2	1.98	56.83	36.9	1.54	76.43	39.6	1.93
May.....	88.80	40.0	2.22	103.46	40.1	2.58	71.92	39.3	1.83	78.80	40.1	1.99	55.50	36.3	1.54	75.27	39.0	1.93
June.....	91.21	40.9	2.23	107.23	41.4	2.59	72.29	39.5	1.83	81.81	40.7	2.01	58.21	37.8	1.54	77.81	39.9	1.95
July.....	93.11	41.2	2.26	109.88	42.1	2.61	71.74	39.2	1.83	82.42	40.8	2.02	58.29	38.1	1.53	76.83	39.4	1.95
Leather and leather products—Continued																		
Industrial leather belting and packing																		
Boot and shoe cut stock and findings																		
Footwear (except rubber)																		
Luggage																		
Handbags and small leather goods																		
Gloves and miscel- laneous leather goods																		
1955: Average.....	\$71.81	40.8	\$1.76	\$51.95	38.2	\$1.36	\$49.96	37.3	\$1.34	\$60.28	39.4	\$1.51	\$48.51	38.2	\$1.27	\$46.38	37.1	\$1.25
1956: Average.....	72.40	40.0	1.81	53.48	37.4	1.43	53.57	37.2	1.44	62.72	39.2	1.60	51.00	37.1	1.36	48.34	37.1	1.31
July.....	71.20	40.0	1.78	54.05	37.8	1.43	54.96	37.9	1.45	61.69	38.8	1.59	50.09	37.1	1.35	47.82	36.5	1.31
August.....	71.64	39.8	1.80	53.77	37.6	1.43	53.17	37.1	1.46	62.64	38.9	1.57	51.68	38.0	1.36	49.74	37.4	1.33
September.....	73.71	40.5	1.81	53.07	36.6	1.45	52.56	36.0	1.46	64.32	40.2	1.60	51.61	37.4	1.35	49.58	37.0	1.34
October.....	75.07	40.8	1.84	53.07	36.6	1.45	52.41	35.9	1.46	63.99	39.5	1.62	53.76	38.4	1.40	50.63	37.5	1.35
November.....	79.38	42.0	1.89	53.14	36.4	1.46	52.71	36.1	1.46	67.03	39.9	1.68	53.30	37.8	1.41	48.37	36.1	1.34
December.....	75.70	40.7	1.86	53.30	38.4	1.44	54.31	37.2	1.46	64.13	38.4	1.67	53.02	37.6	1.41	49.71	37.1	1.34
1957: January.....	78.63	42.5	1.85	55.77	38.2	1.46	55.71	37.9	1.47	61.88	37.5	1.65	52.50	37.5	1.40	49.28	36.5	1.35
February.....	75.70	40.7	1.86	56.50	38.7	1.46	56.39	38.1	1.48	62.59	38.4	1.63	53.82	37.9	1.42	49.82	36.9	1.35
March.....	75.36	40.3	1.87	55.71	37.9	1.47	56.47	37.9	1.47	63.08	38.7	1.63	53.96	38.0	1.42	49.87	36.4	1.37
April.....	73.47	39.5	1.86	53.07	36.6	1.45	54.39	36.5	1.49	61.45	37.7	1.63	52.05	36.4	1.43	48.96	36.0	1.36
May.....	74.34	40.4	1.84	54.68	37.2	1.47	53.04	36.5	1.49	61.56	38.0	1.62	51.05	35.7	1.43	49.46	36.1	1.37
June.....	74.77	40.2	1.86	57.72	39.0	1.48	55.73	37.4	1.49	63.50	39.2	1.62	52.82	37.2	1.42	50.01	36.5	1.37
July.....	77.52	40.8	1.90	56.89	38.7	1.47	55.94	37.8	1.48	62.96	40.1	1.57	53.02	37.6	1.41	49.18	35.9	1.37
Stone, clay, and glass products																		
Total: Stone, clay, and glass products																		
Flat glass																		
Glass and glassware, pressed or blown ²																		
Glass containers																		
Pressed and blown glass																		
Glass products made of purchased glass																		
1955: Average.....	\$77.19	41.5	\$1.86	\$114.38	43.0	\$2.66	\$74.82	39.8	\$1.88	\$76.19	40.1	\$1.90	\$73.08	39.5	\$1.85	\$65.03	40.9	\$1.59
1956: Average.....	80.56	41.1	1.96	\$113.03	41.1	2.75	79.80	39.7	2.01	80.59	39.7	2.03	77.81	39.7	1.96	68.71	40.9	1.68
July.....	80.77	41.0	1.97	\$112.06	41.2	2.72	78.01	39.9	2.03	83.63	40.4	2.07	75.66	38.8	1.95	67.20	40.0	1.68
August.....	81.56	41.3	1.97	\$110.02	40.9	2.69	79.18	39.2	2.02	80.94	39.1	2.07	76.04	39.4	1.93	68.51	40.3	1.70
September.....	81.18	41.0	1.97	\$111.38	40.8	2.73	75.31	37.1	2.03	73.34	35.6	2.06	79.00	39.9	1.96	69.02	40.6	1.70
October.....	82.19	41.1	1.99	\$12.34	41.3	2.72	81.81	40.3	2.03	82.62	40.3	2.07	79.24	39.7	2.01	70.58	40.8	1.73
November.....	82.61	41.1	2.01	\$119.07	41.4	2.82	82.00	40.0	2.05	83.21	40.2	2.07	79.46	39.7	2.01	72.39	40.9	1.77
December.....	81.41	40.3	2.02	\$117.29	41.3	2.84	82.89	39.7	2.07	84.44	40.4	2.09	78.76	39.1	2.04	70.22	39.9	1.76
1957: January.....	81.61	40.6	2.01	\$114.49	40.6	2.78	81.99	39.8	2.06	82.78	39.8	2.08	80.29	39.6	2.03	69.30	39.9	1.75
February.....	82.21	40.7	2.02	\$112.59	40.5	2.78	82.78	39.8	2.06	82.78	39.8	2.08	80.59	39.7	2.03	70.80	40.0	1.77
March.....	81.20	40.4	2.01	\$110.80	40.0	2.77	81.18	39.6	2.05	82.80	40.0	2.07	82.97	38.9	2.03	69.65	39.8	1.75
April.....	82.42	40.8	2.02	\$110.95	40.2	2.76	84.44	40.4	2.09	86.09	40.8	2.11	81.39	39.7	2.05	67.55	38.6	1.75
May.....	83.44	40.9	2.04	\$108.90	39.6	2.75	84.02	40.2	2.09	85.65	40.4	2.12	81.40	39.9	2.04	69.42	39.0	1.78
June.....	82.61	40.3	2.05	\$110.48	39.6	2.79	83.79	39.9	2.10	84.56	39.7	2.13	82.41	40.2	2.05	69.17	39.3	1.76

TABLE C-1. Hours and gross earnings of production workers or nonsupervisory employees¹—Con.

Year and month	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings															
	Manufacturing—Continued																													
Stone, clay, and glass products—Continued																														
Pottery and related products																														
1955: Average.....	\$66.38	37.5	\$1.77	\$78.23	44.7	\$1.75	\$74.98	44.9	\$1.67	\$67.78	42.1	\$1.61	\$81.12	41.6	\$1.95	\$86.73	41.3	\$2.10												
1956: Average.....	72.20	37.8	1.91	81.88	44.5	1.84	78.75	45.0	1.75	69.87	41.1	1.70	83.03	40.7	2.04	88.18	39.9	2.21												
July.....	69.26	35.1	1.94	82.70	44.7	1.83	81.07	45.8	1.77	69.63	41.2	1.69	80.79	39.8	2.03	87.52	39.6	2.21												
August.....	72.55	38.0	1.91	84.44	45.4	1.86	81.70	45.9	1.78	70.35	40.9	1.72	82.82	40.4	2.05	85.75	38.8	2.21												
September.....	74.11	38.4	1.93	83.07	45.9	1.85	81.07	45.8	1.77	70.28	41.1	1.71	84.46	40.8	2.07	85.38	38.2	2.24												
October.....	72.14	37.7	1.94	82.77	44.5	1.86	80.36	45.4	1.77	72.56	41.7	1.74	82.97	40.7	2.06	81.90	40.1	2.29												
November.....	74.50	38.4	1.94	81.03	43.8	1.85	77.79	44.2	1.75	70.93	41.9	1.73	80.73	41.3	2.10	83.80	41.0	2.29												
December.....	74.88	38.4	1.95	81.03	43.8	1.85	77.79	44.2	1.76	71.40	40.8	1.74	88.41	41.1	2.11	99.72	42.8	2.33												
1957: January.....	71.20	36.7	1.94	77.75	41.8	1.86	74.16	41.9	1.76	68.16	39.4	1.73	80.73	41.1	2.11	91.76	40.6	2.26												
February.....	74.10	38.0	1.95	79.98	43.0	1.86	77.25	43.4	1.78	69.65	39.8	1.75	87.77	41.4	2.12	91.13	40.2	2.26												
March.....	74.69	38.3	1.95	81.06	42.9	1.87	78.01	43.1	1.81	70.00	40.0	1.75	87.34	41.2	2.12	92.86	41.1	2.26												
April.....	73.91	37.9	1.95	80.51	42.6	1.89	78.62	43.2	1.82	70.05	39.8	1.76	85.67	40.6	2.11	91.35	40.6	2.25												
May.....	73.11	37.3	1.96	82.28	43.6	1.91	81.07	44.3	1.83	72.62	40.8	1.78	86.92	41.0	2.12	91.30	40.4	2.26												
June.....	72.07	36.4	1.98	85.55	44.1	1.94	83.59	44.7	1.87	72.22	40.8	1.77	87.74	41.0	2.14	91.71	40.4	2.27												
July.....	71.68	36.2	1.98	84.20	43.4	1.94	80.91	43.5	1.86	71.51	40.4	1.77	85.81	40.1	2.14	89.67	39.5	2.27												
Stone, clay and glass products—Continued																														
Primary metal industries																														
Asbestos products		Nonclay refractories		Total: Primary metal industries		Blast furnaces, steel works, and rolling mills ²		Blast furnaces, steel works, and rolling mills, except electrometallurgical products		Electrometallurgical products																				
1955: Average.....	\$84.67	43.2	\$1.96	\$81.75	38.2	\$2.14	\$92.29	41.2	\$2.24	\$95.99	40.5	\$2.37	\$96.39	40.5	\$2.38	\$87.14	41.3	\$2.11												
1956: Average.....	84.65	41.7	2.03	82.84	38.7	2.28	96.52	40.9	2.36	102.06	40.5	2.52	102.47	40.5	2.53	88.44	40.2	2.20												
July.....	82.21	40.7	2.02	73.59	33.0	2.23	91.88	40.3	2.28	96.47	38.9	2.45	97.25	38.9	2.50	85.53	38.7	2.21												
August.....	87.78	42.2	2.08	83.98	38.0	2.21	93.69	37.9	2.36	97.52	38.7	2.52	97.91	38.7	2.53	88.80	40.0	2.22												
September.....	88.40	42.5	2.08	87.02	38.0	2.29	100.12	41.2	2.43	107.53	41.2	2.61	107.94	41.2	2.62	89.15	39.8	2.24												
October.....	87.98	42.3	2.08	84.73	37.0	2.29	98.74	40.8	2.42	104.90	40.5	2.59	105.30	40.5	2.60	91.08	40.3	2.26												
November.....	87.1*	42.3	2.06	96.52	40.9	2.36	99.06	40.6	2.44	101.18	40.3	2.61	108.59	40.3	2.62	90.27	40.3	2.24												
December.....	88.19	42.4	2.08	91.41	39.4	2.32	100.94	41.2	2.45	107.16	40.9	2.62	107.57	40.9	2.63	91.13	40.5	2.25												
1957: January.....	85.49	41.5	2.06	96.56	40.4	2.30	101.27	41.0	2.47	101.79	40.9	2.66	108.20	40.9	2.67	92.21	40.8	2.26												
February.....	88.41	42.1	2.10	100.45	41.0	2.45	99.14	40.3	2.46	101.06	40.1	2.62	105.46	40.1	2.63	90.85	40.2	2.26												
March.....	88.20	41.8	2.11	94.49	39.7	2.38	98.65	40.1	2.46	104.01	39.7	2.62	104.14	39.7	2.63	90.80	40.0	2.27												
April.....	89.46	42.0	2.13	85.98	36.9	2.33	97.91	39.8	2.46	105.89	39.5	2.63	104.28	39.5	2.64	91.25	40.2	2.27												
May.....	92.24	42.9	2.15	86.30	37.2	2.32	97.42	30.6	2.46	102.31	39.2	2.61	102.70	39.2	2.62	90.52	39.7	2.28												
June.....	92.88	42.8	2.17	88.83	37.8	2.35	99.70	40.2	2.48	107.67	38.8	2.63	102.00	38.8	2.64	92.00	40.0	2.30												
July.....	90.09	41.9	2.15	85.56	36.1	2.37	100.55	39.9	2.52	107.86	38.8	2.71	108.26	39.8	2.72	92.58	38.9	2.38												
Iron and steel foundries ³																														
Gray-iron foundries		Malleable-iron foundries		Steel foundries		Primary smelting and refining of nonferrous metals ⁴		Primary smelting and refining of copper, lead, and zinc		Primary smelting and refining of nonferrous metals ⁴																				
1955: Average.....	\$85.06	41.9	\$2.03	\$84.00	42.0	\$2.00	\$83.82	41.7	\$2.01	\$88.62	41.8	\$2.12	\$84.66	40.7	\$2.06	\$81.61	40.6	\$2.01												
1956: Average.....	87.34	41.2	2.12	83.84	40.7	2.06	83.84	40.5	2.07	95.63	42.5	2.25	91.46	41.2	2.22	89.02	41.6	2.14												
July.....	85.47	40.7	2.10	82.41	40.2	2.05	81.19	39.8	2.04	93.66	42.0	2.23	93.18	41.6	2.24	92.42	42.2	2.19												
August.....	86.30	40.9	2.11	83.84	40.7	2.06	82.80	40.0	2.07	92.99	41.7	2.23	91.17	40.7	2.24	90.47	41.5	2.18												
September.....	87.95	41.1	2.14	84.25	40.7	2.07	86.50	40.8	2.12	95.99	42.1	2.28	93.26	41.5	2.25	93.26	42.2	2.21												
October.....	88.56	41.0	2.16	84.84	40.4	2.10	85.67	40.6	2.11	98.87	42.3	2.29	94.16	41.3	2.26	90.69	41.6	2.18												
November.....	87.89	40.5	2.17	84.59	39.9	2.12	85.44	40.3	2.12	95.30	41.8	2.28	93.71	41.1	2.26	90.03	41.3	2.18												
December.....	91.32	41.7	2.19	88.80	41.3	2.15	96.07	40.6	2.12	99.10	42.9	2.31	94.33	40.8	2.29	89.38	41.0	2.18												
1957: January.....	88.73	40.7	2.18	84.99	39.9	2.13	86.24	40.3	2.14	98.18	42.5	2.31	94.76	41.2	2.30	90.64	41.2	2.20												
February.....	87.78	39.9	2.20	84.07	39.1	2.15	85.39	39.9	2.14	98.26	41.5	2.32	93.43	40.8	2.29	88.94	40.8	2.18												
March.....	87.12	39.6	2.20	82.60	38.6	2.15	83.50	39.2	2.13	97.86	42.0	2.33	93.61	40.7	2.30	89.79	41.0	2.19												
April.....	86.68	39.4	2.20	82.78	38.5	2.15	82.01	38.5	2.13	96.98	41.8	2.32	94.02	40.7	2.31	89.57	40.9	2.19												
May.....	86.85	39.3	2.21	82.94	38.4	2.16	84.10	39.3	2.14	95.58	41.2	2.32	94.89	40.9	2.32	90.20	41.0	2.20												
June.....	88.53	39.7	2.23	85.24	39.1	2.18	84.89	39.3	2.16	96.41	41.2	2.34	95.53	41.0	2.33	90.83	41.1	2.21												
July.....	87.69	39.5	2.22	85.24	39.1	2.18	83.85	39.0	2.15	94.24	40.7	2.34	96.05	40.7	2.36	91.80	40.8	2.25												
Primary refining of aluminum																														
Secondary smelting and refining of nonferrous metals ⁵		Rolling, drawing, and alloying of nonferrous metals ⁶		Rolling, drawing, and alloying of copper		Rolling, drawing, and alloying of aluminum		Nonferrous foundries																						
1955: Average.....	\$80.28	40.4	\$2.21	\$81.45	42.2	\$1.93	\$89.89	42.2	\$2.13	\$93.31	43.4	\$2.15	\$86.09	40.8	\$2.11	\$85.89	40.9	\$2.10												
1956: Average.....	93.34	40.4	2.36	85.04	42.2	2.02	93.38	41.5	2.25	95.18	42.5	2.35	98.94	40.8	2.18	93.26	42.2	2.18												
July.....	94.51	40.7	2.34	83.21	41.4	2.01	93.51	41.5	2.22	96.32	40.5	2.35	98.24	40.2	2.22	98.47	40.7	2.18												
August.....	93.17	38.5	2.42	86.52	42.0	2.06	93.55	39.8	2.24	94.58	40.8	2.32	98.76	38.8	2.30	98.57	40.9	2.19												
September.....	90.06	40.6	2.44	86.74	41.7	2.08	94.58	41.3	2.29	94.02	41.1	2.36	98.43	40.7	2.33	91.91	41.4	2.22												
October.....	90.38	40.4	2.46	86.52	42.0	2.06	93.02	40.8	2.28	91.58	40.7	2.35	93.56	40.5	2.31	91.69	41.3	2.22												
November.....	90.06	40.6	2.44	84.86	41.6	2.04	92.97	41.1	2.27	93.09	40.5	2.37	93.09	40.3	2.31	90.76	40.7	2.23												
December.....	100.21	40.9	2.45	87.35	41.4	2.11	94.71	41.0	2.31	94.53	41.1	2.32	94.60	40.6	2.33	91.13	40.5	2.25												
1957: January.....	100.94	40.7	2.48	86.51	41.0	2																								

TABLE C-1. Hours and gross earnings of production workers or nonsupervisory employees¹—Con.

Year and month	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings														
Manufacturing—Continued																	
Primary metal industries—Continued																	
Miscellaneous primary metal industries ²																	
1955: Average.....	\$97.10	42.4	\$2.29	\$101.28	42.2	\$2.40	\$95.67	42.9	\$2.23	\$91.46	41.2	\$2.22	\$82.37	41.6	\$1.98		
1956: Average.....	99.90	41.8	2.39	105.42	42.0	2.51	97.06	41.6	2.24	94.66	40.8	2.22	88.28	41.2	2.07		
July.....	96.82	41.2	2.35	101.93	41.1	2.48	93.60	41.6	2.25	94.16	41.3	2.28	81.78	40.7	2.05		
August.....	96.29	40.8	2.36	101.02	40.9	2.47	94.39	41.4	2.28	93.32	40.4	2.24	84.44	40.7	2.05		
September.....	98.88	41.2	2.40	104.08	41.3	2.52	96.56	41.8	2.31	95.00	40.6	2.34	87.78	41.6	2.11		
October.....	100.36	41.3	2.43	109.65	42.5	2.58	97.39	41.8	2.33	91.10	39.1	2.33	89.03	41.8	2.13		
November.....	101.26	41.5	2.44	108.71	42.3	2.57	98.28	42.0	2.34	94.64	40.1	2.36	87.56	41.3	2.12		
December.....	102.83	41.8	2.46	108.88	42.2	2.58	99.59	42.2	2.36	96.32	40.3	2.39	90.09	42.1	2.14		
1957: January.....	103.91	41.9	2.48	112.66	43.0	2.62	97.53	41.5	2.35	97.20	40.5	2.40	86.90	40.8	2.13		
February.....	102.92	41.5	2.48	109.62	42.0	2.61	97.70	41.4	2.36	98.25	40.6	2.42	87.33	41.0	2.13		
March.....	102.18	41.2	2.48	109.36	41.9	2.61	96.76	41.0	2.36	96.56	39.9	2.42	87.74	41.0	2.14		
April.....	100.12	40.7	2.46	105.52	40.9	2.58	96.52	40.9	2.36	96.80	40.0	2.47	87.94	40.9	2.15		
May.....	99.38	40.4	2.46	105.52	40.9	2.58	95.18	40.5	2.35	96.47	39.7	2.43	88.34	40.9	2.16		
June.....	102.67	41.4	2.48	107.90	41.5	2.60	97.23	41.2	2.36	104.58	42.0	2.49	89.40	41.2	2.17		
July.....	101.34	40.7	2.49	106.19	41.0	2.59	93.93	39.8	2.36	104.00	41.6	2.50	88.94	40.8	2.18		
Cutlery, hand tools, and hardware ³																	
1955: Average.....	\$79.30	41.3	\$1.92	\$69.87	41.1	\$1.70	\$77.95	40.6	\$1.92	\$82.78	41.6	\$1.99	\$78.18	40.3	\$1.94		
1956: Average.....	81.60	40.8	2.00	72.62	40.8	1.78	82.62	40.9	2.02	83.44	40.7	2.05	80.19	39.7	2.02		
July.....	79.20	40.0	1.98	71.33	40.3	1.77	79.80	40.1	1.96	80.79	39.8	2.03	78.39	39.0	2.01		
August.....	80.40	40.4	1.99	70.80	40.0	1.77	82.62	40.9	2.02	82.21	40.3	2.04	80.60	39.9	2.02		
September.....	85.08	41.5	2.05	73.26	40.7	1.80	84.26	41.1	2.05	88.83	41.9	2.12	82.42	40.4	2.04		
October.....	87.15	41.9	2.08	74.44	40.9	1.82	85.08	41.1	2.07	91.16	42.4	2.15	83.22	40.4	2.06		
November.....	85.70	41.4	2.07	75.53	41.5	1.82	84.05	40.8	2.06	88.61	41.6	2.13	80.36	39.2	2.05		
December.....	88.41	42.1	2.10	75.58	41.3	1.83	83.60	41.3	2.08	92.87	42.6	2.18	81.99	39.8	2.06		
1957: January.....	83.62	40.2	2.08	74.30	40.6	1.83	83.01	40.1	2.07	86.03	40.2	2.14	81.95	39.4	2.08		
February.....	84.03	40.4	2.08	74.12	40.5	1.83	83.01	40.1	2.07	86.67	40.5	2.14	83.39	39.9	2.09		
March.....	83.82	40.3	2.08	75.07	40.8	1.84	82.99	39.9	2.08	86.86	40.4	2.15	82.56	39.5	2.09		
April.....	83.21	40.2	2.07	74.34	40.4	1.84	82.58	39.7	2.08	85.84	40.3	2.13	81.93	39.2	2.09		
May.....	84.44	40.4	2.09	74.40	40.0	1.86	82.99	39.9	2.08	87.91	40.7	2.16	82.11	39.1	2.10		
June.....	84.63	40.3	2.10	74.77	40.2	1.86	82.97	39.7	2.09	88.10	40.6	2.17	83.77	39.7	2.11		
July.....	84.19	39.9	2.11	73.60	40.0	1.84	80.67	38.6	2.09	88.48	40.4	2.19	81.90	39.0	2.10		
Oil burners, nonelectric heating and cooking apparatus, not elsewhere classified																	
1955: Average.....	\$76.17	40.3	\$1.89	\$83.01	41.3	\$2.01	\$83.00	41.5	\$2.00	\$82.82	41.0	\$2.02	\$81.40	40.7	\$2.00		
1956: Average.....	79.00	39.9	1.98	87.57	41.5	2.11	87.57	41.1	2.11	84.85	40.6	2.09	87.98	41.5	2.12		
July.....	77.03	39.5	1.95	85.49	41.1	2.08	85.49	41.3	2.07	82.81	40.3	2.08	84.05	40.9	2.10		
August.....	79.60	40.2	1.98	86.05	40.4	2.13	84.35	39.6	2.13	82.58	40.7	2.08	87.53	40.9	2.14		
September.....	82.01	40.8	2.01	89.86	41.6	2.16	82.16	41.3	2.16	87.54	41.1	2.13	90.47	41.7	2.18		
October.....	82.62	40.9	2.02	90.92	41.9	2.17	80.72	42.0	2.16	87.29	40.6	2.15	91.34	41.9	2.18		
November.....	79.80	39.7	2.01	89.42	41.4	2.16	86.69	41.6	2.18	81.93	39.2	2.09	80.14	39.0	2.17		
December.....	81.81	40.3	2.03	92.21	42.3	2.18	82.21	42.3	2.18	90.09	41.9	2.15	92.00	42.2	2.18		
1957: January.....	80.99	39.7	2.04	90.47	41.5	2.18	80.99	41.5	2.18	89.07	40.6	2.12	91.56	42.0	2.18		
February.....	83.02	40.3	2.06	91.12	41.8	2.18	91.98	42.0	2.19	86.45	40.6	2.13	91.96	41.8	2.20		
March.....	82.19	39.9	2.06	91.76	41.9	2.19	82.28	42.4	2.20	87.51	40.7	2.15	92.46	42.0	2.20		
April.....	80.77	39.4	2.05	91.96	41.8	2.20	83.93	42.5	2.21	87.91	40.7	2.16	91.54	41.8	2.21		
May.....	80.96	39.3	2.06	93.04	42.1	2.21	94.57	42.6	2.22	88.82	42.4	2.20	92.45	42.0	2.20		
June.....	82.80	40.0	2.07	93.68	42.2	2.22	95.67	42.9	2.23	90.25	41.4	2.18	91.10	2.19	94.92	42.0	2.26
July.....	80.16	39.1	2.05	93.86	41.9	2.24	95.79	42.2	2.27	90.63	41.3	2.18	92.80	41.8	2.22		
Metal stamping, contouring, and engraving ³																	
1955: Average.....	\$86.10	42.0	\$2.05	\$85.11	39.7	\$1.64	\$89.25	42.3	\$2.11	\$78.72	41.0	\$1.92	\$77.87	41.2	\$1.89		
1956: Average.....	87.34	41.2	2.12	66.64	39.2	1.70	91.30	41.5	2.20	76.40	40.0	1.91	80.75	41.2	1.96		
July.....	86.09	40.8	2.11	67.13	40.2	1.67	91.05	41.2	2.21	75.60	40.0	1.89	77.16	40.4	1.91		
August.....	85.67	40.6	2.11	66.92	39.6	1.69	86.79	41.0	2.19	75.79	40.1	1.89	79.37	40.7	1.95		
September.....	91.56	42.0	2.18	71.81	40.8	1.76	96.25	42.4	2.27	78.34	40.8	1.92	82.59	41.5	1.99		
October.....	92.86	42.4	2.19	71.23	40.7	1.75	97.81	42.9	2.28	80.36	41.0	1.96	84.62	42.1	2.01		
November.....	91.78	42.1	2.18	70.24	40.6	1.73	96.25	42.4	2.27	80.57	40.9	1.97	82.81	41.2	2.01		
December.....	94.15	42.6	2.21	67.83	39.9	1.70	99.13	43.1	2.30	82.60	41.3	2.00	84.65	41.7	2.03		
1957: January.....	87.91	40.7	2.16	70.07	40.5	1.73	91.62	40.9	2.24	78.80	39.8	1.98	82.22	40.5	2.03		
February.....	87.51	40.7	2.15	69.25	39.8	1.74	90.98	40.8	2.23	78.41	39.8	1.97	81.20	40.2	2.02		
March.....	87.89	40.5	2.17	74.39	43.0	1.73	92.89	41.1	2.26	78.41	39.8	1.97	82.42	40.6	2.03		
April.....	88.29	40.5	2.18	64.90	37.3	1.74	91.76	40.6	2.26	78.21	39.7	1.97	81.20	40.2	2.02		
May.....	89.32	40.6	2.20	65.14	36.8	1.77	93.25	40.9	2.28	78.80	39.6	1.99	80.40	39.8	2.02		
June.....	91.21	40.9	2.23	68.85	38.9	1.77	96.00	41.2	2.33	78.80	39.4	2.00	82.42	40.4	2.04		
July.....	88.80	40.0	2.22	73.78	42.4	1.74	92.63	40.1	2.31	79.80	39.7	2.01	81.59	39.8	2.05		

See footnotes at end of table.

TABLE C-1. Hours and gross earnings of production workers or nonsupervisory employees¹—Con.

Year and month	Avg. wky. earnings	Avg. wky. hours	Avg. hrly. earnings																											
	Manufacturing—Continued																													
Fabricated metal products (except ordnance, machinery, and transportation equipment)—Continued																														
Machinery (except electrical)																														
Total: Machinery (except electrical)																														
1955: Average.....	\$91.16	42.6	\$2.14	\$89.02	41.6	\$2.14	\$88.27	43.7	\$2.02	\$82.94	43.2	\$2.02	\$87.36	41.8	\$2.09															
1956: Average.....	97.16	42.8	2.27	90.17	40.8	2.18	88.20	42.2	2.09	85.63	42.6	2.01	93.26	42.2	2.21															
July.....	107.87	46.1	2.34	88.07	40.4	2.16	83.23	41.0	2.03	82.60	41.3	2.01	91.96	41.8	2.20															
August.....	95.57	42.1	2.27	86.40	40.0	2.16	85.28	41.0	2.08	83.40	41.7	2.00	92.16	41.7	2.21															
September.....	94.25	40.8	2.31	88.44	40.2	2.20	90.31	42.6	2.12	85.26	42.0	2.03	95.18	42.3	2.25															
October.....	92.40	40.0	2.31	93.71	41.1	2.29	91.38	42.7	2.14	87.13	42.5	2.05	94.73	42.1	2.25															
November.....	95.30	40.9	2.33	92.11	40.4	2.28	89.88	42.0	2.14	86.94	42.0	2.07	93.83	41.7	2.25															
December.....	97.58	41.7	2.34	98.94	42.1	2.35	92.66	42.9	2.16	89.65	43.1	2.08	96.70	42.6	2.27															
1957: January.....	97.06	41.3	2.35	95.94	41.0	2.34	90.72	42.0	2.16	89.66	42.9	2.09	95.11	41.9	2.27															
February.....	96.05	40.7	2.36	93.50	40.3	2.32	91.58	42.4	2.16	90.05	43.1	2.09	95.11	41.9	2.27															
March.....	98.65	41.8	2.36	96.17	41.1	2.34	91.14	42.0	2.17	89.66	42.9	2.06	95.30	41.8	2.28															
April.....	97.64	41.2	2.37	94.60	40.6	2.33	90.27	41.6	2.17	89.26	42.5	2.10	94.39	41.4	2.28															
May.....	96.70	41.5	2.33	93.32	40.4	2.31	89.62	41.3	2.17	87.57	41.9	2.09	93.71	41.1	2.28															
June.....	103.53	43.5	2.38	97.94	41.5	2.36	89.82	42.1	2.18	87.36	41.6	2.10	101.53	42.1	2.46															
July.....	103.33	42.7	2.42	94.71	40.3	2.35	90.45	41.3	2.19	86.73	41.3	2.10	93.61	40.7	2.30															
Steam engines, turbines, and water wheels																														
Diesel and other internal combustion, not elsewhere classified																														
Agricultural machinery and tractors⁴																														
1955: Average.....	\$91.96	39.3	\$2.34	\$90.72	42.0	\$2.16	\$83.84	40.5	\$2.07	\$87.94	40.9	\$2.15	\$79.80	40.1	\$1.99															
1956: Average.....	101.50	41.6	2.44	93.98	41.4	2.27	86.80	40.6	2.17	90.27	40.3	2.24	82.37	39.6	2.08															
July.....	97.11	41.5	2.34	93.52	41.2	2.27	85.14	39.6	2.15	88.44	40.2	2.20	81.30	38.9	2.09															
August.....	96.88	40.2	2.41	91.08	40.3	2.26	85.57	39.8	2.15	86.90	39.5	2.20	83.62	40.2	2.08															
September.....	101.57	41.8	2.43	94.30	41.0	2.26	87.07	39.5	2.22	91.83	40.1	2.29	82.43	38.7	2.13															
October.....	106.26	42.0	2.53	93.84	40.8	2.30	87.30	39.5	2.21	92.06	40.2	2.20	80.47	38.5	2.09															
November.....	105.50	41.7	2.53	94.07	40.9	2.30	87.47	39.4	2.22	91.37	39.9	2.29	82.04	38.7	2.12															
December.....	113.27	43.4	2.61	95.82	41.3	2.32	89.15	39.8	2.24	92.63	40.1	2.31	84.93	39.5	2.15															
1957: January.....	108.88	42.2	2.58	94.89	40.9	2.32	89.95	39.8	2.26	93.67	40.2	2.33	84.67	39.2	2.16															
February.....	110.85	42.8	2.59	91.66	40.8	2.32	89.89	39.6	2.27	92.73	39.8	2.33	86.07	39.3	2.19															
March.....	113.71	43.4	2.62	94.02	40.7	2.31	91.43	40.1	2.28	93.20	40.0	2.33	89.47	40.3	2.22															
April.....	111.11	42.9	2.59	93.32	40.4	2.31	90.57	39.9	2.27	91.64	39.5	2.32	89.28	40.4	2.21															
May.....	113.62	43.2	2.63	94.94	40.4	2.35	91.25	40.2	2.27	91.48	39.6	2.31	90.58	40.8	2.25															
June.....	112.99	42.8	2.64	96.87	40.7	2.38	91.60	40.0	2.29	92.04	39.5	2.33	90.72	40.5	2.24															
July.....	114.70	42.8	2.68	93.85	39.6	2.37	91.14	39.8	2.29	92.20	39.4	2.34	89.87	40.3	2.27															
Construction and mining machinery, except oilfields																														
1955: Average.....	\$87.14	42.3	\$2.06	\$86.90	42.6	\$2.04	\$98.10	43.6	\$2.25	\$95.27	43.7	\$2.18	\$91.80	42.5	\$2.16															
1956: Average.....	92.01	42.4	2.17	92.45	42.8	2.16	108.69	45.1	2.41	106.26	45.8	2.32	97.63	43.2	2.26															
July.....	88.15	41.4	2.15	92.87	43.6	2.13	107.49	44.6	2.41	103.28	45.1	2.29	96.73	42.8	2.28															
August.....	88.58	42.1	2.18	93.95	42.9	2.16	108.14	44.5	2.43	103.70	44.7	2.27	94.05	41.8	2.26															
September.....	90.98	42.0	2.19	90.93	42.5	2.21	111.64	45.2	2.47	109.02	46.0	2.37	96.02	42.3	2.27															
October.....	92.40	42.0	2.20	94.37	42.7	2.21	109.52	44.7	2.45	108.32	45.9	2.36	98.21	42.7	2.37															
November.....	91.08	41.4	2.20	93.46	42.1	2.22	107.12	43.9	2.44	101.81	45.3	2.38	97.25	41.1	2.31															
December.....	94.55	42.4	2.23	94.57	42.6	2.22	111.44	45.3	2.46	110.64	46.1	2.40	100.89	43.3	2.33															
1957: January.....	93.44	41.9	2.23	92.62	42.1	2.20	110.16	44.6	2.47	106.83	44.7	2.39	98.98	42.3	2.34															
February.....	93.41	41.7	2.24	94.75	42.3	2.24	111.10	44.8	2.48	107.07	44.8	2.39	100.11	42.6	2.35															
March.....	94.28	41.9	2.25	93.44	41.9	2.23	111.50	44.6	2.50	105.16	44.0	2.39	100.54	42.6	2.36															
April.....	93.56	41.4	2.26	94.28	41.9	2.25	110.81	44.5	2.49	104.44	43.7	2.30	100.77	42.7	2.36															
May.....	93.56	41.4	2.26	89.60	40.0	2.24	109.25	43.7	2.50	102.29	42.8	2.36	99.96	42.0	2.38															
June.....	92.89	41.1	2.26	93.60	41.6	2.25	108.68	43.3	2.51	102.00	42.5	2.36	99.25	41.7	2.38															
July.....	91.20	41.0	2.28	92.70	41.2	2.25	106.25	42.5	2.50	97.88	41.3	2.37	100.26	41.6	2.41															
Special-industry machinery (except metal working machinery)⁴																														
Food-products machinery																														
Textile machinery																														
Paper-industries machinery																														
1955: Average.....	\$83.88	42.0	\$1.99	\$84.86	41.6	\$2.04	\$74.11	41.4	\$1.79	\$89.40	44.7	\$2.00	\$82.60	41.9	\$2.21															
1956: Average.....	89.67	42.7	2.10	89.45	41.8	2.14	76.59	41.4	1.83	97.48	46.2	2.11	102.70	45.7	2.35															
July.....	89.46	42.4	2.11	90.94	42.1	2.16	75.67	40.9	1.85	95.98	46.4	2.09	104.75	44.2	2.37															
August.....	89.25	42.5	2.10	89.45	41.8	2.14	76.63	41.2	1.86	98.12	46.5	2.11	101.24	42.9	2.36															
September.....	91.59	43.0	2.13	89.64	41.5	2.16	78.35	41.9	1.87	100.58	47.0	2.14	105.16	44.0	2.39															
October.....	91.16	42.6	2.14	89.40	41.2	2.17	78.44	41.5	1.89	96.92	45.5	2.13	104.44	43.7	2.39															
November.....	91.38	42.5	2.15	88.75	40.9	2.17	78.85	41.5	1.90	100.19	46.6	2.15	105.12	43.8	2.40															
December.....	92.88	43.0	2.16	91.12	41.8	2.18	78.85	41.5	1.90	106.00	48.4	2.19	103.10	43.5	2.37															
1957: January.....	90.73	42.2	2.15	90.03	41.3	2.18	78.25	41.4	1.89	101.77	46.9	2.17	104.16	43.4	2.40															
February.....	90.73	42.2	2.15	91.94	41.6	2.21	77.66	41.1	1.89	100.04	46.1	2.17	101.86	42.8	2.38															
March.....	90.72	42.0	2.16	91.52	41.6	2.20	76.57	40.3	1.90	99.82	46.0	2.17	102.29	42.8	2.39															
April.....	90.07	41.7	2.16	91.52	41.6	2.20	76.57	40.3	1.90	99.82	46.0	2.17	102.29	42.8	2.39															
May.....	89.42	41.4	2.16	91.49	41.4	2.21	76.76	40.4	1.90	95.03	44.2	2.15	102.05	42.7	2.39															
June.....	89.64	41.5	2.16	91.69	41.3	2.22	77.93	40.8	1.91	94.16	44.0	2.14	97.82	41.1	2.38															
July.....	89.82	41.2	2.18	91.88	41.2	2.23	77.74	40.7	1.91	93.09	43.5	2.14	99.12	41.3	2.40															
Printing-trades machinery and equipment																														
General industrial machinery																														

See footnotes at end of table.

TABLE C-1. Hours and gross earnings of production workers or nonsupervisory employees¹—Con.

Year and month	Manufacturing—Continued																	
	Machinery (except electrical)—Continued																	
	Pumps, air and gas compressors			Conveyors and conveying equipment			Blowers, exhaust and ventilating fans			Industrial trucks, tractors, etc.			Mechanical power-transmission equipment			Mechanical stokers, and industrial furnaces and ovens		
1955: Average.....	\$84.45	41.6	\$2.03	\$86.51	41.0	\$2.11	\$79.95	41.0	\$1.95	\$86.93	42.2	\$2.06	\$90.31	42.8	\$2.11	\$85.06	41.3	\$2.06
1956: Average.....	90.53	42.5	2.13	83.43	43.0	2.27	86.53	41.8	2.07	91.12	41.8	2.18	95.24	42.9	2.22	90.92	41.9	2.17
July.....	87.34	41.2	2.12	95.34	42.0	2.27	87.57	41.7	2.10	83.92	39.4	2.13	91.54	41.8	2.19	88.94	40.8	2.18
August.....	88.61	41.6	2.13	97.81	42.9	2.28	85.70	41.2	2.08	88.54	40.8	2.17	95.44	42.8	2.23	91.78	42.1	2.18
September.....	91.58	42.4	2.16	102.66	43.5	2.36	87.57	41.9	2.09	93.24	42.0	2.22	96.73	42.8	2.26	93.26	42.2	2.21
October.....	91.80	42.5	2.16	102.26	43.7	2.34	88.20	41.8	2.11	91.72	41.5	2.21	97.94	43.1	2.27	91.52	41.6	2.16
November.....	91.37	42.3	2.16	98.87	42.8	2.31	86.53	41.4	2.09	95.60	42.3	2.26	96.02	42.3	2.27	90.23	41.2	2.19
December.....	92.66	42.7	2.17	101.09	43.2	2.34	90.31	42.4	2.13	97.61	43.0	2.27	99.39	43.4	2.29	93.48	42.3	2.21
1957: January.....	91.12	41.8	2.18	96.98	41.8	2.32	87.76	41.2	2.13	87.78	39.9	2.20	95.76	42.0	2.28	93.24	42.0	2.22
February.....	92.43	42.4	2.18	98.56	42.3	2.33	85.65	40.4	2.18	88.18	39.9	2.21	95.15	42.1	2.26	91.94	41.4	2.21
March.....	90.91	41.7	2.18	99.83	42.3	2.36	86.28	40.7	2.12	89.47	40.3	2.22	96.18	42.0	2.29	93.88	42.1	2.23
April.....	89.19	41.1	2.17	99.36	42.1	2.36	85.05	40.5	2.10	90.54	40.6	2.23	93.98	41.4	2.27	93.41	41.7	2.24
May.....	91.10	41.6	2.19	97.81	41.8	2.34	86.88	40.6	2.14	89.47	40.3	2.22	93.48	41.0	2.28	92.77	41.6	2.23
June.....	90.39	40.9	2.21	96.93	41.6	2.33	87.72	40.8	2.15	90.50	40.4	2.24	94.92	41.1	2.29	94.69	41.9	2.26
July.....	88.44	40.2	2.20	97.94	41.5	2.36	86.94	39.7	2.19	90.80	40.0	2.27	94.25	40.8	2.31	92.11	40.4	2.28
Office and store machines and devices ⁴	Computing machines and cash registers			Typewriters ⁵			Service-industry and household machines ⁴			Domestic laundry equipment			Commercial laundry, dry-cleaning, and pressing machines					
1955: Average.....	\$82.81	40.2	\$2.06	\$88.06	40.3	\$2.21	\$76.00	40.0	\$1.90	\$83.64	40.8	\$2.05	\$85.28	41.0	\$2.08	\$78.06	41.3	\$1.89
1956: Average.....	90.23	41.2	2.19	96.05	41.4	2.32	82.20	41.1	2.05	86.24	40.3	2.14	89.32	40.6	2.20	81.34	41.5	1.95
July.....	91.49	41.4	2.21	99.22	42.4	2.34	80.60	40.5	1.99	85.44	40.3	2.12	87.02	40.1	2.17	80.56	41.1	1.96
August.....	90.23	41.2	2.19	96.51	41.6	2.32	81.39	40.9	1.99	85.14	39.6	2.15	86.61	40.1	2.21	80.56	41.1	1.96
September.....	93.41	41.7	2.24	100.14	41.9	2.39	86.10	42.0	2.05	87.23	40.2	2.17	92.51	41.3	2.24	81.93	41.8	1.96
October.....	93.86	41.9	2.24	99.96	42.0	2.38	87.92	43.1	2.04	85.54	39.6	2.16	91.39	40.8	2.24	79.77	40.7	1.96
November.....	92.06	41.1	2.24	96.70	40.8	2.37	86.65	43.1	2.08	86.96	39.6	2.18	92.43	40.9	2.26	80.34	41.2	1.95
December.....	93.41	41.7	2.24	98.88	41.9	2.36	86.52	42.0	2.08	86.48	40.4	2.19	94.39	41.4	2.28	83.13	42.2	1.97
1957: January.....	91.46	41.2	2.22	99.30	41.9	2.37	76.43	39.6	1.93	86.55	39.7	2.18	84.67	37.8	2.24	79.56	40.8	1.95
February.....	91.21	40.9	2.23	98.53	41.4	2.38	76.04	39.4	1.93	88.70	40.5	2.19	85.91	38.7	2.22	79.20	40.0	1.98
March.....	90.76	40.7	2.23	97.58	41.0	2.38	77.41	39.9	1.94	87.60	40.0	2.19	88.80	38.2	2.22	80.59	40.7	1.98
April.....	89.47	40.3	2.22	95.34	40.4	2.36	77.61	39.8	1.95	84.15	38.6	2.18	80.74	36.7	2.20	81.76	41.5	1.97
May.....	88.93	39.7	2.24	96.56	40.4	2.39	73.27	39.0	1.93	84.58	38.8	2.18	86.69	38.7	2.24	81.18	41.0	1.98
June.....	89.89	39.6	2.27	97.60	40.0	2.44	75.08	38.9	1.93	86.07	39.3	2.19	88.26	39.4	2.24	79.79	39.5	2.02
July.....	89.78	39.9	2.25	98.74	40.8	2.42	72.96	38.4	1.90	85.89	39.4	2.18	90.09	40.4	2.23	86.52	42.0	2.06
Sewing machines	Refrigerators and air-conditioning units			Miscellaneous machinery parts ⁴			Fabricated pipe, fittings, and valves			Ball and roller bearings			Machine shop (job and repair)					
1955: Average.....	\$83.22	40.4	\$2.06	\$84.46	40.8	\$2.07	\$85.88	42.1	\$2.04	\$83.03	40.9	\$2.03	\$90.92	43.5	\$2.09	\$85.45	42.3	\$2.02
1956: Average.....	88.97	41.0	2.17	86.22	40.1	2.15	89.66	41.7	2.15	88.99	41.2	2.16	89.01	41.4	2.15	90.31	42.2	2.14
July.....	93.50	42.5	2.20	84.80	40.0	2.12	87.33	41.0	2.05	85.81	40.1	2.14	85.01	40.1	2.12	89.25	41.9	2.13
August.....	87.16	39.8	2.19	85.54	39.6	2.16	87.95	41.1	2.14	87.64	40.2	2.18	84.40	40.0	2.11	88.88	42.0	2.14
September.....	89.10	40.5	2.20	86.55	39.7	2.18	91.12	41.8	2.15	91.49	41.4	2.21	86.62	41.5	2.17	91.57	42.2	2.17
October.....	88.26	40.3	2.19	84.41	38.9	2.17	91.54	41.8	2.19	91.49	41.4	2.21	92.38	41.8	2.21	91.39	42.1	2.17
November.....	88.44	40.2	2.19	85.58	38.9	2.20	91.52	41.6	2.16	91.05	42.2	2.20	92.21	41.8	2.21	91.32	41.7	2.19
December.....	86.46	39.3	2.20	87.78	39.9	2.20	92.00	41.9	2.17	94.13	42.4	2.22	94.33	42.3	2.23	94.81	42.9	2.21
1957: January.....	86.11	39.5	2.18	90.58	40.8	2.22	88.28	41.8	2.11	91.24	41.6	2.22	91.91	41.4	2.22	93.93	42.5	2.21
February.....	87.78	39.9	2.20	88.82	41.1	2.21	92.35	41.6	2.22	90.58	40.8	2.22	91.23	41.3	2.22	93.93	42.5	2.21
March.....	88.80	40.0	2.22	84.26	38.3	2.20	90.83	41.1	2.21	90.32	40.5	2.23	87.34	30.7	2.22	92.60	41.1	2.21
April.....	89.87	40.3	2.23	84.48	38.4	2.20	90.80	40.9	2.22	89.24	40.2	2.22	88.36	30.8	2.22	92.57	41.7	2.22
May.....	89.42	40.1	2.23	86.41	39.1	2.21	91.58	40.7	2.25	90.32	40.5	2.23	88.48	39.5	2.24	93.11	41.2	2.26
June.....	83.02	40.3	2.06	89.13	40.7	2.19	77.41	39.9	1.94	84.23	40.3	2.09	83.03	40.9	2.09	93.79	40.6	2.31
July.....	81.18	39.6	2.05	88.48	40.4	2.19	76.44	39.2	1.95	84.77	39.8	2.13	80.00	39.8	2.01	94.89	40.9	2.32
Electrical machinery																		
Total: Electrical machinery	\$76.52			\$1.88			\$80.57			\$71.15			40.2			\$1.77		
1955: Average.....	\$76.75	40.8	1.98	87.15	41.5	2.10	76.11	40.7	1.87	84.46	41.2	2.05	80.16	40.9	1.96	90.86	41.3	2.20
1956: Average.....	79.40	40.1	1.98	86.73	41.3	2.10	75.55	40.4	1.87	84.66	40.7	2.08	78.39	40.2	1.95	90.01	41.1	2.19
July.....	80.19	40.5	1.98	86.92	41.0	2.12	74.24	39.7	1.87	83.84	40.5	2.07	79.76	40.9	1.95	90.13	40.6	2.22
August.....	82.61	41.1	2.01	89.66	41.7	2.15	77.11	40.8	1.89	85.45	40.9	2.09	81.58	41.2	1.98	94.39	41.4	2.28
September.....	83.22	41.2	2.02	89.42	41.4	2.16	77.71	40.9	1.90	83.62	40.2	2.08	82.01	40.8	2.01	92.89	41.1	2.26
October.....	83.23	41.0	2.03	89.40	41.2	2.17	77.38	40.3	1.92	84.86	40.8	2.08	81.00	40.1	2.02	93.11	41.2	2.26
November.....	84.46	41.2	2.05	90.69	41.6	2.18	78.12	40.9	1.91	86.93	41.2	2.11	83.23	41.0	2.03	95.08	41.7	2.28
December.....	82.82	40.4	2.05	88.13	40.8	2.16	76.97	40.3	1.91	85.89	40.9	2.10	80.00	40.2	1.99	91.96	40.7	2.26
1957: January.....	83.23	40.6	2.05	88.13	40.8	2.16	77.57	40.4	1.92	84.65	40.5	2.09	81.61	40.4	2.02	91.53	40.5	2.26
February.....	83.43	40.5	2.06	88.75	40.9	2.17	77.39	40.1	1.93	85.88	40.7	2.11	81.00	40.1	2.02	92.39	40.7	2.27
March.....	83.02	40.3	2.06	87.89	40.5	2.17	76.24	39.5	1.93	85.26	40.6	2.10	81.20	40.0	2.03	90.85	40.2	2.26
April.....	82.21	40.1	2.05	87.67	40.4	2.17	76.43	39.6	1.93	84.40	40.0	2.11	81.20	40.2	2.02	91.25	40.4	2.27
May.....	83.02	40.3	2.06	89.13	40.7	2.19	77.41	39.9	1.94	84.23	40.3	2.09	83.03	40.9	2.09	93.79	40.6	2

TABLE C-1. Hours and gross earnings of production workers or nonsupervisory employees¹—Con.

Year and month	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. hours	Avg. hrly. earnings			
	Manufacturing—Continued																	
Electrical machinery—Continued																		
<i>Power and distribution transformers</i>		<i>Switchgear, switch- board, and indus- trial controls</i>			<i>Electrical welding apparatus</i>			<i>Electrical appliances</i>			<i>Insulated wire and cable</i>		<i>Electrical equipment for vehicles</i>					
1955: Average.....	\$84.03	41.6	\$2.02	\$80.18	40.7	\$1.97	\$91.35	43.5	\$2.10	\$79.17	40.6	\$1.95	\$77.04	42.1	\$1.83	\$83.64	41.2	\$2.03
1956: Average.....	82.62	42.1	2.20	90.30	42.0	2.15	101.20	44.0	2.30	80.60	39.9	2.05	84.32	42.8	1.97	84.42	40.2	2.10
July.....	93.72	42.6	2.20	90.29	41.8	2.16	102.56	44.0	2.31	81.18	39.6	2.05	82.98	41.1	1.99	81.56	39.4	2.07
August.....	94.98	42.4	2.24	90.07	41.7	2.16	99.76	43.0	2.32	80.20	40.5	2.03	84.38	42.4	1.99	83.50	39.7	2.10
September.....	96.08	42.7	2.25	93.50	42.5	2.17	102.08	44.0	2.32	82.41	40.2	2.05	87.84	43.2	2.01	87.94	40.1	2.15
October.....	93.98	41.9	2.29	99.48	42.3	2.21	102.75	44.1	2.33	84.40	41.0	2.06	88.10	43.5	2.03	89.84	41.4	2.17
November.....	97.71	42.9	2.31	92.80	41.8	2.22	97.78	42.7	2.29	84.25	40.7	2.07	87.95	42.9	2.05	90.47	41.5	2.18
December.....	97.02	42.0	2.31	94.30	42.1	2.24	100.99	44.1	2.29	83.01	40.1	2.07	88.54	43.4	2.04	94.13	42.2	2.22
1957: January.....	93.80	41.0	2.29	91.91	41.4	2.22	99.79	43.2	2.31	82.58	39.7	2.08	85.27	41.8	2.04	86.62	40.1	2.16
February.....	94.76	41.2	2.30	91.72	41.5	2.21	100.25	43.4	2.31	82.74	39.4	2.10	84.45	41.6	2.03	85.32	39.5	2.16
March.....	95.17	41.2	2.31	92.13	41.5	2.22	101.38	43.7	2.32	82.92	39.3	2.11	85.48	41.9	2.04	84.10	39.3	2.14
April.....	93.89	41.0	2.29	92.13	41.5	2.22	97.44	42.0	2.32	82.50	39.1	2.11	85.46	42.1	2.03	83.85	39.0	2.15
May.....	91.94	40.5	2.27	92.10	41.3	2.23	98.18	42.5	2.31	81.83	38.6	2.12	86.50	42.4	2.04	83.03	38.8	2.14
June.....	92.80	40.7	2.28	93.15	41.4	2.25	99.53	42.9	2.32	82.43	38.7	2.13	86.09	42.2	2.04	85.58	38.9	2.20
July.....	93.43	40.8	2.29	92.25	41.0	2.25	91.48	39.6	2.31	81.87	38.8	2.11	83.84	41.1	2.04	85.97	38.9	2.21
<i>Electric lamps</i>		<i>Communication equipment⁴</i>			<i>Radios, phonographs, television sets, and equipment</i>			<i>Radio tubes</i>			<i>Telephone, telegraph, and related equip- ment</i>		<i>Miscellaneous elec- trical products⁴</i>					
1955: Average.....	\$68.80	40.0	\$1.72	\$72.09	40.5	\$1.78	\$69.77	40.1	\$1.74	\$66.40	40.0	\$1.66	\$80.94	43.1	\$2.11	\$74.48	40.7	\$1.83
1956: Average.....	75.07	40.8	1.84	75.95	40.4	1.88	72.98	40.1	1.82	67.25	39.1	1.72	92.54	2.22	78.34	40.8	2.02	
July.....	71.50	39.5	1.81	73.30	39.2	1.87	72.83	39.8	1.83	63.61	37.2	1.71	84.89	39.3	2.16	76.57	40.3	1.90
August.....	72.76	40.2	1.81	75.76	40.3	1.88	73.75	40.3	1.83	67.12	38.8	1.73	92.60	41.9	2.21	77.14	40.6	1.90
September.....	73.60	40.0	1.84	77.33	40.7	1.90	74.74	40.4	1.85	70.00	40.0	1.75	95.22	42.7	2.23	78.74	40.8	1.93
October.....	74.05	39.6	1.87	78.12	40.9	1.91	75.70	40.7	1.86	69.87	39.7	1.76	95.67	42.9	2.23	81.73	41.7	1.95
November.....	76.57	40.3	1.90	77.95	40.6	1.92	74.77	40.2	1.86	67.90	38.8	1.75	101.22	44.2	2.29	82.19	41.3	1.99
December.....	77.74	40.7	1.91	78.55	40.7	1.93	75.76	40.3	1.88	68.25	39.0	1.75	100.55	44.1	2.28	83.42	41.5	2.01
1957: January.....	78.12	40.9	1.91	78.40	40.0	1.96	75.24	39.6	1.90	65.98	37.7	1.75	100.25	43.4	2.31	81.20	40.4	2.01
February.....	77.55	40.6	1.91	79.58	40.6	1.96	76.40	40.0	1.91	69.21	39.1	1.77	100.53	43.9	2.29	82.01	40.6	2.02
March.....	77.36	40.5	1.91	79.59	40.4	1.97	76.80	40.0	1.92	69.95	39.3	1.78	96.67	42.9	2.30	81.00	40.5	2.00
April.....	76.19	40.1	1.90	79.19	40.2	1.97	76.61	39.9	1.92	69.63	38.9	1.79	97.75	42.5	2.30	80.79	40.6	1.99
May.....	74.86	39.4	1.90	79.00	40.1	1.97	76.21	39.9	1.91	69.84	38.8	1.80	95.49	41.7	2.29	80.20	40.3	1.99
June.....	75.65	39.4	1.92	79.59	40.4	1.97	76.97	40.3	1.91	71.89	39.5	1.82	94.81	41.4	2.29	80.80	40.4	2.00
July.....	74.67	39.3	1.90	75.85	39.1	1.94	75.05	39.5	1.90	67.86	37.7	1.80	86.36	38.9	2.22	80.20	40.3	1.99
Electrical machinery—Continued																		
<i>Storage batteries</i>		<i>Primary batteries (dry and wet)</i>			<i>X-ray and nonradio electronic tubes</i>			<i>Total: Transportation equipment</i>			<i>Motor vehicles and equipment⁴</i>		<i>Motor vehicles, bodies, parts, and accessories</i>					
1955: Average.....	\$84.86	41.6	\$2.04	\$61.69	39.8	\$1.55	\$81.20	40.4	\$2.01	\$93.44	41.9	\$2.23	\$97.78	42.7	\$2.29	\$98.87	42.8	\$2.31
1956: Average.....	87.12	40.9	2.13	64.48	39.8	1.62	57.53	40.9	2.14	94.71	41.0	2.31	94.71	40.3	2.35	96.15	40.4	2.38
July.....	83.77	39.7	2.11	63.20	40.0	1.58	86.67	40.5	2.14	94.84	40.8	2.30	92.57	39.9	2.32	93.77	39.9	2.35
August.....	86.71	40.9	2.12	63.36	39.6	1.60	88.56	40.1	2.16	85.25	40.8	2.31	92.90	39.7	2.34	93.85	39.6	2.37
September.....	88.99	41.2	2.16	64.39	39.5	1.63	85.15	41.0	2.15	97.47	41.3	2.36	99.06	40.6	2.44	100.94	40.7	2.48
October.....	93.93	42.5	2.21	66.00	40.0	1.65	88.78	41.1	2.18	99.07	41.8	2.37	102.41	41.8	2.45	103.91	41.9	2.48
November.....	94.30	42.1	2.24	65.74	39.6	1.66	89.60	41.0	2.18	82.18	42.2	2.36	105.72	42.8	2.47	107.73	43.1	2.50
December.....	96.11	43.1	2.23	65.90	39.7	1.66	89.10	40.5	2.20	105.95	43.6	2.33	112.95	43.0	2.51	115.84	45.4	2.54
1957: January.....	89.10	40.5	2.20	66.86	39.8	1.68	86.76	39.8	2.18	99.26	41.7	2.38	106.36	41.3	2.43	101.84	41.4	2.46
February.....	89.54	40.7	2.20	67.43	39.8	1.69	87.60	40.0	2.19	98.36	41.5	2.37	99.29	41.2	2.41	101.02	41.4	2.44
March.....	88.44	40.2	2.20	68.34	40.2	1.70	89.10	40.5	2.20	82.20	41.1	2.38	97.12	40.3	2.41	98.17	40.4	2.43
April.....	86.94	39.7	2.19	70.18	40.8	1.72	88.00	40.0	2.20	96.22	40.6	2.37	94.17	39.4	2.30	95.11	39.3	2.42
May.....	86.94	39.7	2.19	70.11	41.0	1.71	88.26	40.3	2.19	94.56	39.9	2.37	93.84	39.1	2.40	95.01	39.1	2.43
June.....	89.42	40.1	2.23	67.43	39.9	1.69	89.06	40.3	2.21	96.24	40.1	2.37	97.42	39.6	2.46	98.60	39.6	2.49
July.....	87.86	39.4	2.23	66.59	39.4	1.69	93.34	41.3	2.26	95.65	39.7	2.41	96.08	39.7	2.47	97.25	38.9	2.50
<i>Truck and bus bodies</i>		<i>Trailers (truck and automobile)</i>			<i>Aircraft and parts⁴</i>			<i>Aircraft</i>			<i>Aircraft engines and parts</i>		<i>Aircraft propellers and parts</i>					
1955: Average.....	\$81.38	41.1	\$1.98	\$84.44	41.8	\$2.02	\$89.62	41.3	\$2.17	\$89.40	41.2	\$2.17	\$88.97	41.0	\$2.17	\$90.47	41.5	\$2.18
1956: Average.....	81.41	40.3	2.02	\$82.80	40.0	2.07	95.99	42.1	2.28	94.89	41.8	2.27	96.67	42.4	2.28	96.93	42.7	2.27
July.....	80.60	39.9	2.02	80.99	39.7	2.04	95.95	41.9	2.29	95.49	41.7	2.29	96.22	42.2	2.28	97.13	42.6	2.28
August.....	83.44	40.9	2.04	82.41	40.2	2.05	97.29	42.3	2.30	96.60	42.0	2.30	97.55	42.6	2.29	96.50	42.7	2.26
September.....	81.80	40.1	2.04	84.00	40.0	2.10	97.94	42.4	2.31	96.60	42.0	2.30	99.76	43.0	2.32	97.81	42.9	2.28
October.....	81.58	39.6	2.06	84.84	40.4	2.10	97.71	42.3	2.31	96.79	41.9	2.31	99.76	43.0	2.32	99.62	43.5	2.29
November.....	84.85	40.6	2.09	81.97	39.6	2.07	100.39	42.9	2.34	97.67	42.1	2.32	104.92	43.9	2.39	103.84	44.0	2.36
December.....	81.35	39.3	2.07	80.11	38.7	2.07	99.26	42.6	2.33	97.71	42.3	2.31	102.82	43.2	2.38	92.52	40.4	2.29
1957: January.....	83.79	39.9	2.10	78.74	38.6	2.04	98.56	42.3	2.33	97.21	41.9	2.32	102.62	43.3	2.37	95.17	41.2	2.31
February.....	85.01	40.1	2.12	79.75	38.9	2.05	99.17	42.2	2.35	96.05	41.9	2.34	101.20	42.7	2.37	97.16	41.7	2.33
March.....	85.86	40.5	2.12	80.94	39.1	2.07	99.12	42.0	2.36	97.76	41.6	2.35	100.25	42.3	2.37			

TABLE C-1. Hours and gross earnings of production workers or nonsupervisory employees¹—Con.

Year and month	Avg. wky. earnings	Avg. wky. hours	Avg. hrly. earnings	Avg. wky. hours	Avg. hrly. earnings	Avg. wky. earnings	Avg. wky. hours	Avg. hrly. earnings	Avg. wky. hours	Avg. hrly. earnings	Avg. wky. earnings	Avg. wky. hours	Avg. hrly. earnings	Avg. wky. earnings	Avg. wky. hours	Avg. hrly. earnings		
Manufacturing—Continued																		
Transportation equipment—Continued																		
Other aircraft parts and equipment	Ship and boat building and repairing⁴	Shipbuilding and repairing	Boatbuilding and repairing	Railroad equipment⁵	Locomotives and parts													
1955: Average.....	\$90.49	41.7	\$2.17	\$83.53	39.4	\$2.12	\$86.63	39.2	\$2.21	\$70.30	40.4	\$1.74	\$90.45	40.2	\$2.25	\$94.28	41.9	\$2.25
1956: Average.....	96.24	42.9	2.29	89.10	39.6	2.25	92.27	39.6	2.33	73.57	40.2	1.83	95.96	39.9	2.37	99.17	42.2	2.35
July.....	96.87	42.3	2.29	89.60	40.0	2.24	92.23	40.1	2.30	72.50	39.4	1.84	95.99	40.5	2.37	101.01	42.8	2.36
August.....	98.21	42.7	2.30	90.35	39.8	2.27	92.73	39.8	2.33	75.79	40.1	1.88	88.54	38.0	2.33	94.89	40.9	2.32
September.....	99.72	42.8	2.33	91.14	39.8	2.29	93.53	39.8	2.35	73.87	39.5	1.87	96.96	40.4	2.40	100.86	42.2	2.39
October.....	99.76	43.0	2.32	90.68	39.6	2.29	93.06	39.6	2.35	75.60	40.0	1.89	97.77	40.4	2.42	97.82	41.1	2.38
November.....	101.32	43.3	2.34	90.40	38.8	2.33	93.12	38.8	2.40	74.07	39.4	1.88	93.30	39.2	2.38	97.10	42.8	2.38
December.....	104.31	44.2	2.36	94.71	40.3	2.35	97.77	40.4	2.42	74.64	39.7	1.88	98.58	40.4	2.44	102.06	42.0	2.43
1957: January.....	101.76	43.3	2.35	93.67	40.2	2.33	96.88	40.2	2.41	74.43	39.8	1.87	98.74	40.3	2.45	101.75	41.7	2.44
February.....	100.15	42.8	2.34	94.40	40.0	2.36	97.11	39.8	2.44	78.06	41.3	1.89	98.96	40.4	2.45	100.85	41.5	2.43
March.....	101.05	43.0	2.35	94.80	40.0	2.37	97.76	39.9	2.45	76.14	40.5	1.88	100.28	40.6	2.47	101.02	41.4	2.44
April.....	101.24	42.9	2.36	94.87	40.2	2.36	97.60	40.0	2.44	77.93	40.8	1.91	100.44	40.5	2.48	102.48	42.0	2.44
May.....	99.17	42.2	2.35	96.32	40.3	2.39	98.65	40.1	2.46	80.03	41.9	1.91	98.55	39.9	2.47	97.28	40.2	2.42
June.....	100.06	42.4	2.36	96.15	40.4	2.38	98.98	40.4	2.45	78.72	41.0	1.92	99.10	38.8	2.49	102.47	40.5	2.53
July.....	99.07	41.8	2.37	96.96	40.4	2.40	98.98	40.4	2.45	79.00	40.1	1.97	101.71	40.2	2.53	102.56	40.7	2.52
Transportation equipment—Continued																		
Instruments and related products																		
Railroad and street cars	Other transportation equipment	Total: Instruments and related products	Laboratory, scientific, and engineering instruments	Mechanical measuring and controlling instruments	Optical instruments and lenses													
1955: Average.....	\$88.20	39.2	\$2.25	\$77.83	41.4	\$1.88	\$77.93	40.8	\$1.91	\$88.99	41.2	\$2.16	\$79.15	40.8	\$1.94	\$78.36	40.6	\$1.93
1956: Average.....	91.96	42.8	2.37	77.59	40.2	1.93	82.01	40.8	2.01	94.95	41.2	2.25	83.64	41.0	2.04	83.03	40.5	2.05
July.....	93.38	43.2	2.37	78.00	40.0	1.95	81.81	40.5	2.02	95.40	42.4	2.25	81.80	40.1	2.04	83.02	40.3	2.06
August.....	85.88	36.7	2.34	77.60	40.0	1.94	82.21	40.7	2.02	96.02	42.3	2.27	82.01	40.2	2.04	84.05	40.8	2.06
September.....	94.95	39.4	2.41	79.15	40.8	1.94	84.26	41.1	2.05	98.01	42.8	2.29	85.49	41.1	2.08	84.25	40.7	2.07
October.....	97.84	40.1	2.44	78.72	41.0	1.92	83.64	40.8	2.05	97.33	42.5	2.29	85.49	41.3	2.07	84.23	40.3	2.09
November.....	91.63	38.5	2.38	76.61	39.9	1.92	84.87	41.0	2.07	95.11	41.9	2.27	85.49	41.3	2.07	83.98	39.8	2.11
December.....	97.11	39.8	2.44	77.02	38.9	1.98	84.87	41.0	2.07	98.18	42.5	2.31	85.49	41.1	2.09	85.06	40.7	2.09
1957: January.....	97.66	39.7	2.46	77.42	39.3	1.97	84.66	40.7	2.08	99.03	42.5	2.33	85.68	40.8	2.10	83.98	39.8	2.11
February.....	98.40	40.0	2.46	80.40	40.4	1.99	85.69	41.0	2.09	99.26	42.6	2.33	86.72	41.1	2.11	85.24	40.4	2.11
March.....	99.94	40.3	2.48	79.09	40.4	1.98	85.47	40.7	2.10	98.65	41.8	2.36	86.92	41.0	2.12	85.24	40.4	2.11
April.....	99.60	40.0	2.49	79.40	40.1	1.98	85.26	40.6	2.10	97.34	41.6	2.36	87.54	41.1	2.13	85.05	40.5	2.10
May.....	99.10	39.8	2.49	81.20	40.4	2.01	84.42	40.2	2.10	93.03	40.1	2.12	86.69	40.7	2.16	85.41	40.1	2.13
June.....	97.96	39.5	2.48	81.40	40.1	2.03	85.46	40.5	2.11	96.05	40.7	2.16	86.69	40.7	2.13	85.84	40.3	2.13
July.....	101.20	40.0	2.53	79.17	39.0	2.03	84.61	40.1	2.11	95.04	40.1	2.17	85.65	40.4	2.12	85.63	40.2	2.13
Instruments and related products—Continued																		
Miscellaneous manufacturing industries																		
Surgical, medical, and dental instruments	Ophthalmic goods	Photographic apparatus	Watches and clocks	Total: Miscellaneous manufacturing industries	Jewelry, silverware, and plated ware⁶													
1955: Average.....	\$69.02	40.6	\$1.70	\$62.19	40.6	\$1.54	\$85.70	41.2	\$2.08	\$69.20	40.0	\$1.73	\$67.40	40.6	\$1.66	\$71.40	42.0	\$1.70
1956: Average.....	71.51	40.4	1.71	64.48	40.3	1.60	81.46	41.2	2.22	70.77	39.1	1.61	70.53	40.8	1.75	74.23	41.7	1.78
July.....	70.75	40.2	1.71	64.80	40.0	1.62	80.62	40.9	2.24	70.05	39.7	1.61	70.40	39.2	1.74	70.05	39.8	1.76
August.....	71.51	40.4	1.77	63.28	39.8	1.59	92.95	41.2	2.24	72.25	39.7	1.62	89.95	40.2	1.74	75.75	41.1	1.77
September.....	72.50	40.5	1.79	64.40	40.0	1.61	83.34	41.3	2.26	72.47	39.6	1.63	87.03	40.3	1.74	74.82	41.8	1.79
October.....	72.04	39.8	1.81	64.00	40.0	1.60	83.75	41.3	2.27	73.75	40.3	1.63	87.30	40.3	1.74	77.35	42.5	1.82
November.....	73.75	40.8	1.83	64.64	39.9	1.62	83.30	41.1	2.27	71.21	38.7	1.64	87.13	40.3	1.74	78.69	43.0	1.83
December.....	73.12	40.4	1.81	65.93	40.2	1.64	84.85	41.6	2.28	71.76	39.0	1.64	87.27	40.6	1.74	79.12	43.0	1.84
1957: January.....	72.94	40.3	1.81	64.55	39.6	1.63	84.30	41.0	2.30	71.97	38.9	1.65	87.20	40.0	1.81	72.67	40.6	1.79
February.....	74.48	40.7	1.83	66.23	39.9	1.66	83.89	41.0	2.29	73.47	39.5	1.66	87.62	40.3	1.81	74.26	40.8	1.82
March.....	73.71	40.1	1.82	67.77	40.1	1.69	83.84	40.8	2.30	72.34	39.1	1.65	87.49	40.6	1.81	75.07	40.8	1.84
April.....	73.38	40.1	1.83	67.54	40.2	1.68	83.84	40.8	2.30	70.10	38.1	1.64	87.22	39.9	1.81	73.93	40.4	1.83
May.....	74.15	40.3	1.84	67.77	40.1	1.69	94.02	40.7	2.31	71.23	38.5	1.65	87.04	39.8	1.81	73.20	40.0	1.83
June.....	75.30	40.7	1.85	67.54	40.2	1.68	94.71	41.0	2.31	72.15	39.0	1.67	87.81	39.9	1.80	74.34	40.4	1.84
July.....	74.59	40.1	1.86	68.00	40.0	1.70	93.79	40.6	2.31	70.05	38.7	1.61	71.31	39.4	1.81	72.40	40.0	1.81
Jewelry and findings																		
Silversware and plated ware	Musical instruments and parts	Toys and sporting goods⁸	Games, toys, dolls, and children's vehicles	Sporting and athletic goods⁹														
1955: Average.....	\$67.04	41.9	\$1.60	\$80.14	42.4	\$1.80	\$75.44	41.0	\$1.84	\$80.52	30.3	\$1.54	\$80.28	39.4	\$1.53	\$80.92	39.8	\$1.55
1956: Average.....	69.06	41.6	1.66	83.28	41.9	1.99	80.54	41.3	1.95	82.56	30.1	1.60	81.85	38.1	1.59	83.99	39.5	1.62
July.....	65.01	39.4	1.65	81.20	40.6	2.00	79.77	40.7	1.95	81.30	38.8	1.59	81.20	39.0	1.57	81.82	38.4	1.61
August.....	67.32	40.8	1.66	84.02	41.8	2.01	80.16	40.9	1.96	82.49	30.3	1.59	81.86	38.4	1.57	83.20	39.2	1.63
September.....	68.39	41.2	1.66	87.72	43.0	2.04	82.80	41.4	2.00	82.40	30.0	1.60	81.15	38.7	1.58	85.11	39.7	1.64
October.....	71.74	42.2	1.70	89.42	43.2	2.07	83.60	41.8	2.00	84.64	30.9	1.62	84.24	39.9	1.61	85.04	39.9	1.63
November.....	71.91	42.3																

TABLE C-1. Hours and gross earnings of production workers or nonsupervisory employees¹—Con.

Year and month	Avg. wky. earnings	Avg. wky. hours	Avg. hrly. earnings												
Manufacturing—Continued															
Miscellaneous manufacturing industries—Continued															
1955: Average.....	\$62.88	41.1	\$1.53	\$60.30	40.2	\$1.50	\$72.80	41.6	\$1.75	\$70.70	40.4	\$1.74	\$82.12	41.9	\$1.96
1956: Average.....	66.08	41.1	1.62	62.49	39.5	1.59	75.35	41.4	1.82	74.37	40.2	1.83	88.40	41.7	2.12
July.....	65.93	40.2	1.64	60.13	38.3	1.57	74.21	40.1	1.81	73.87	39.5	1.87	85.67	40.6	2.11
August.....	66.01	41.0	1.61	59.75	38.3	1.56	75.58	41.3	1.83	74.56	40.3	1.88	88.83	42.5	2.09
September.....	65.69	40.3	1.63	60.61	39.4	1.55	78.73	42.1	1.87	74.59	40.1	1.86	87.10	40.7	2.14
October.....	70.98	42.0	1.69	62.95	39.1	1.61	78.77	41.9	1.88	74.59	40.1	1.84	89.46	42.6	2.10
November.....	69.39	41.8	1.66	63.08	38.7	1.63	72.61	41.5	1.87	73.23	39.8	1.84	92.20	42.1	2.19
December.....	69.22	41.7	1.66	64.64	39.9	1.62	78.21	41.6	1.88	75.17	40.2	1.87	90.61	41.0	2.21
1957: January.....	67.24	41.0	1.64	64.06	39.3	1.63	78.06	41.3	1.86	74.84	39.6	1.89	83.08	42.5	2.19
February.....	67.89	40.9	1.66	65.27	39.8	1.64	78.25	41.4	1.89	75.41	39.9	1.89	84.53	42.2	2.24
March.....	67.49	40.9	1.65	65.67	39.8	1.65	79.65	40.7	1.91	76.14	40.5	1.88	86.98	40.9	2.20
April.....	67.23	40.5	1.66	64.19	38.9	1.65	76.92	40.7	1.89	74.82	39.8	1.88	92.82	42.0	2.21
May.....	68.88	41.0	1.68	64.57	38.9	1.66	76.36	40.4	1.89	75.01	39.9	1.88	94.55	42.4	2.23
June.....	68.64	41.1	1.67	63.41	38.9	1.63	78.12	40.9	1.91	76.39	40.1	1.88	93.07	41.0	2.27
July.....	65.74	38.9	1.69	64.35	39.0	1.65	80.29	41.6	1.93	74.29	39.1	1.90	89.59	43.7	2.05
Transportation and public utilities—Continued															
Communication															
1955: Average.....	\$72.07	39.6	\$1.82	\$59.72	37.8	\$1.58	\$101.85	43.9	\$2.32	\$78.54	42.0	\$1.87	\$86.52	41.2	\$2.10
1956: Average.....	73.47	39.5	1.86	60.70	37.7	1.61	101.30	43.5	2.36	82.74	42.0	1.97	91.46	41.2	2.22
July.....	74.21	39.9	1.86	61.34	38.1	1.61	102.75	44.1	2.33	84.24	42.2	2.02	92.32	41.4	2.23
August.....	72.89	39.4	1.85	60.16	37.6	1.60	100.25	43.4	2.31	86.28	42.5	2.03	91.88	41.2	2.23
September.....	74.21	39.9	1.86	61.34	38.1	1.61	102.08	44.0	2.32	85.26	42.0	2.03	92.74	41.4	2.24
October.....	74.03	39.8	1.86	61.66	38.3	1.61	100.92	43.5	2.32	85.26	42.0	2.03	92.66	41.0	2.26
November.....	77.08	41.0	1.88	65.61	40.5	1.62	102.96	44.0	2.34	84.03	41.6	2.02	94.21	41.5	2.27
December.....	75.46	39.3	1.92	60.92	36.7	1.66	104.01	43.7	2.38	84.03	41.6	2.02	93.94	41.2	2.26
1957: January.....	73.92	38.7	1.91	60.26	36.3	1.66	99.88	42.5	2.35	85.86	42.7	2.07	94.82	40.9	2.27
February.....	74.88	39.0	1.92	61.79	37.0	1.67	100.58	42.8	2.35	86.94	41.8	2.08	92.62	40.8	2.27
March.....	74.30	38.7	1.92	60.62	36.3	1.67	99.88	42.5	2.35	87.57	41.9	2.09	93.02	40.8	2.28
April.....	74.60	38.7	1.93	60.45	36.2	1.67	101.91	43.0	2.37	86.11	41.4	2.08	94.07	40.9	2.30
May.....	75.66	39.0	1.94	63.27	37.0	1.71	101.63	42.7	2.38	89.25	42.5	2.10	93.61	40.7	2.33
June.....	76.44	39.2	1.95	63.21	37.4	1.69	103.20	43.0	2.40	88.62	42.2	2.10	95.30	40.9	2.37
July.....	76.24	39.3	1.94	63.54	37.6	1.69	102.72	42.8	2.40	88.62	42.2	2.10	96.17	41.1	2.36
Transportation and public utilities—Con.															
Other public utilities—Continued															
1955: Average.....	\$82.62	40.9	\$2.02	\$87.57	41.5	\$2.11	\$77.14	40.6	\$1.90	\$88.50	39.0	\$1.50	\$41.65	35.3	\$1.18
1956: Average.....	80.30	40.9	2.11	92.89	41.1	2.26	81.20	40.4	2.01	60.60	38.6	1.57	43.40	35.0	1.37
July.....	86.48	40.6	2.13	93.56	41.4	2.26	82.22	40.5	2.03	62.17	39.7	1.59	44.73	35.5	1.38
August.....	86.28	40.7	2.12	92.62	40.8	2.27	81.61	40.4	2.02	61.78	39.4	1.58	44.50	35.6	1.39
September.....	88.99	41.2	2.16	94.16	41.3	2.28	82.82	40.6	2.04	62.25	39.5	1.59	43.97	34.9	1.40
October.....	89.84	41.4	2.17	92.62	40.4	2.30	80.55	40.3	2.03	60.90	38.3	1.59	43.60	34.6	1.40
November.....	89.82	41.6	2.18	96.66	41.2	2.33	82.03	40.5	2.05	64.42	38.0	1.59	42.65	34.1	1.41
December.....	89.49	41.2	2.17	95.47	40.8	2.34	88.84	40.7	2.05	59.83	38.6	1.61	43.53	34.6	1.40
1957: January.....	90.25	41.1	2.18	93.13	40.4	2.33	82.41	40.5	2.05	58.32	38.2	1.61	43.40	34.4	1.41
February.....	87.67	40.4	2.17	95.06	40.8	2.33	82.81	40.2	2.06	59.50	38.2	1.61	43.90	34.3	1.42
March.....	86.83	40.2	2.16	95.41	40.6	2.35	83.01	40.1	2.07	61.56	38.0	1.62	43.65	34.1	1.42
April.....	87.23	40.2	2.17	96.52	40.9	2.36	82.80	40.0	2.07	61.56	38.0	1.62	44.38	34.4	1.43
May.....	88.04	40.2	2.19	95.18	40.5	2.35	83.81	40.1	2.09	62.32	38.0	1.64	44.54	34.0	1.45
June.....	89.42	40.1	2.23	96.05	40.7	2.36	84.82	40.2	2.11	63.41	38.2	1.66	45.75	34.4	1.47
July.....	91.13	40.5	2.25	96.93	40.9	2.37	85.05	40.5	2.10	64.46	38.6	1.67	45.94	34.8	1.47
Wholesale and retail trade—Continued															
Retail trade—Continued															
1955: Average.....	\$61.72	38.1	\$1.62	\$79.64	44.0	\$1.51	\$46.82	35.2	\$1.33	\$66.94	42.1	\$1.50	\$69.82	43.1	\$1.62
1956: Average.....	63.38	37.5	1.69	81.28	43.7	1.56	47.54	34.7	1.37	60.30	42.0	1.63	72.68	42.2	1.70
July.....	65.62	38.6	1.70	82.97	43.9	1.59	48.36	35.3	1.37	61.97	41.9	1.67	74.30	42.5	1.71
August.....	64.90	38.4	1.69	82.16	43.7	1.58	48.28	35.5	1.36	60.55	41.9	1.66	74.56	43.1	1.73
September.....	64.30	37.6	1.71	81.53	43.6	1.57	48.16	34.4	1.36	60.97	41.9	1.67	75.33	42.9	1.74
October.....	63.78	37.3	1.71	81.03	43.6	1.55	47.96	34.5	1.35	60.56	42.0	1.68	75.33	42.8	1.76
November.....	63.98	37.2	1.72	81.72	43.7	1.57	47.47	34.4	1.38	70.81	41.9	1.69	73.43	42.8	1.76
December.....	63.70	37.0	1.71	81.91	43.8	1.57	47.50	34.0	1.38	70.79	41.9	1.68	74.20	42.8	1.74
1957: January.....	63.66	36.8	1.73	82.84	43.9	1.58	48.65	34.5	1.41	70.81	41.9	1.69	72.21	41.5	1.74
February.....	63.46	36.7	1.74	82.53	43.8	1.58	48.44	34.6	1.40	68.81	41.8	1.67	73.78	41.8	1.74
March.....	63.68	36.6	1.74	82.78	43.8	1.59	47.75	34.6	1.40	68.38	41.8	1.67	73.78	41.8	1.74
April.....	63.86	36.1	1.74	83.22	43.8	1.60	47.74	34.1	1.40	69.81	41.8	1.67	73.85	42.2	1.75
May.....	64.59	36.7	1.76	84.48	44.0	1.62	48.56	34.2	1.41	71.06	41.8	1.70	75.23	42.5	1.77
June.....	65.67	37.1	1.77	85.17	43.9	1.64	50.05	35.0	1.43	71.65	41.9	1.71	75.65	42.5	1.78
July.....	67.28	37.8	1.78	84.73	43.9	1.93	50.13	35.3	1.42	70.62	41.3	1.71	75.83	42.6	1.78
Other retail trade															
1955: Average.....	\$61.72	38.1	\$1.62	\$79.64	44.0	\$1.51	\$46.82	35.2	\$1.33	\$66.94	42.1	\$1.50	\$69.82	43.1	\$1.62
1956: Average.....	66.08	37.5	1.69	81.28	43.7	1.56	47.54	34.7	1.37	60.30	42.0	1.63	72.68	42.2	1.70
July.....	65.62	38.6	1.70</												

TABLE C-1. Hours and gross earnings of production workers or nonsupervisory employees¹—Con.

Year and month	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings
Service and miscellaneous										
Hotels, year-round ²				Personal services						
				Laundries		Cleaning and dyeing plants				
1955: Average.....	\$41.09	41.5	\$0.90	\$40.70	40.3	\$1.01	\$47.40	39.5	\$1.20	\$93.78
1956: Average.....	42.13	40.9	1.03	42.32	40.3	1.05	49.77	39.5	1.26	91.75
July.....	42.23	41.0	1.03	42.42	40.4	1.05	49.90	39.6	1.26	90.20
August.....	42.43	40.8	1.04	41.90	39.9	1.05	48.39	38.1	1.27	92.06
September.....	42.63	40.6	1.05	42.61	40.2	1.06	50.94	39.8	1.28	92.87
October.....	42.74	40.7	1.05	42.61	40.2	1.06	50.82	39.7	1.28	90.13
November.....	42.63	40.6	1.05	42.29	39.9	1.06	50.56	39.5	1.28	95.73
December.....	43.14	40.7	1.06	42.91	40.1	1.07	50.05	39.1	1.28	94.95
1957: January.....	42.42	40.4	1.05	42.59	39.8	1.07	49.92	38.7	1.29	94.14
February.....	42.32	40.3	1.05	42.59	39.8	1.07	48.90	38.2	1.28	99.00
March.....	42.63	40.6	1.05	42.69	39.9	1.07	49.54	38.7	1.28	99.13
April.....	42.21	40.2	1.05	43.20	40.0	1.08	52.26	40.2	1.30	94.09
May.....	43.23	40.4	1.07	43.93	40.3	1.09	52.79	40.3	1.31	97.61
June.....	43.42	40.2	1.08	44.04	40.4	1.09	52.40	40.0	1.31	101.03
July.....	43.93	40.3	1.09	43.38	39.8	1.09	49.66	38.2	1.30	100.27

¹ For coverage of these series, see footnote 1, tables A-2 and A-3.

For mining, manufacturing, laundries, and cleaning and dyeing plants, data refer to production and related workers only. For the remaining industries, unless otherwise noted, data relate to nonsupervisory employees and working supervisors.

Data for the most recent month are subject to revision without notation.

² For definition, see footnote 3, table A-2.

For definition, see footnote 4, table A-2.

³ Averages shown for 1955 are not strictly comparable with those for later years.⁴ Italicized titles which follow are components of this industry.⁵ Data beginning with January 1957 are not strictly comparable with those shown for earlier years.⁶ Figures for Class I railroads (excluding switching and terminal companies) are based upon monthly data summarized in the M-300 report by the Interstate Commerce Commission and relate to all employees who received pay during the month, except executives, officials, and staff assistants (ICC Group I).⁷ Data relate to employees in such occupations in the telephone industry as switchboard operators, service assistants, operating-room instructors, and

pay-station attendants. In 1956, such employees made up 40 percent of the total number of nonsupervisory employees in establishments reporting hours and earnings data.

⁸ Data relate to employees in such occupations in the telephone industry as central office craftsmen; installation and exchange repair craftsmen; line, cable, and conduit craftsmen; and laborers. In 1956, such employees made up 27 percent of the total number of nonsupervisory employees in establishments reporting hours and earnings data.⁹ Data on average weekly hours and average hourly earnings are not available.¹⁰ Money payments only; additional value of board, room, uniforms, and tips not included.¹¹ Formerly titled "Automobiles." Data not affected.

NOTE: For a description of these series, see Techniques of Preparing Major BLS Statistical Series, BLS Bull. 1168 (1954).

Source: U. S. Department of Labor, Bureau of Labor Statistics for all series except that for Class I railroads (see footnote 7).

TABLE C-2. Average weekly earnings, gross and net spendable, of production workers in manufacturing industries, in current and 1947-49 dollars

Year			Net spendable average weekly earnings ¹				Year and month			Net spendable average weekly earnings ¹			
	Gross average weekly earnings		Worker with no dependents		Worker with 3 dependents			Gross average weekly earnings		Worker with no dependents		Worker with 3 dependents	
	Current	1947-49 ²	Current	1947-49 ²	Current	1947-49 ²	Current	1947-49 ²	Current	1947-49 ²	Current	1947-49 ²	Current
1939: Averge	\$22.86	\$40.17	\$22.58	\$39.70	\$22.62	\$39.76	1956: July	\$78.60	\$67.18	\$64.78	\$55.37	\$72.11	\$61.63
1940: Averge	25.20	42.07	24.69	41.51	24.93	41.63	August	79.79	68.31	65.71	56.26	73.06	62.55
1941: Averge	29.58	47.03	28.05	44.59	29.28	46.55	September	81.81	69.86	67.30	57.47	74.70	63.79
1942: Averge	36.45	52.58	35.77	55.58	36.52	52.05	October	82.73	85.62	75.47	57.45	75.03	63.75
1943: Averge	43.14	58.30	38.01	48.66	41.49	55.53	November	82.22	69.60	67.63	57.41	70.04	63.70
1944: Averge	46.08	61.28	38.29	50.92	44.06	58.59	December	84.05	71.23	69.10	58.56	76.54	64.86
1945: Averge	44.39	57.72	36.97	48.06	42.74	55.58	1957: January	82.41	69.72	67.58	57.17	74.99	63.44
1946: Averge	43.82	52.54	37.72	45.23	43.20	51.80	February	82.41	69.43	67.58	56.93	74.99	63.18
1947: Averge	49.07	52.32	42.76	44.77	48.24	50.51	March	82.21	69.14	67.42	56.70	74.82	62.98
1948: Averge	54.14	52.67	47.43	46.14	53.17	51.72	April	81.59	68.39	66.93	56.10	74.31	62.29
1949: Averge	54.92	53.95	48.09	47.24	53.83	52.88	May	81.78	68.38	67.08	56.09	74.47	62.27
1950: Averge	59.33	57.71	51.09	49.70	57.21	55.65	June	82.80	68.89	67.90	56.49	75.31	62.65
1951: Average	64.71	58.30	54.04	48.68	61.28	55.21	July ³	82.18	68.03	67.40	55.79	74.80	61.92
1952: Average	67.97	59.89	55.66	49.04	63.62	56.05							
1953: Average	71.69	62.67	58.54	51.17	66.58	58.20							
1954: Average	71.86	62.60	59.55	51.87	66.78	58.17							
1955: Average	76.52	66.83	63.15	55.15	70.45	61.53							
1956: Average	79.99	68.84	65.86	56.68	73.22	63.01							

¹ Net spendable average weekly earnings are obtained by deducting from gross average weekly earnings, Federal social security and income taxes for which the worker is liable. The amount of income tax liability depends, of course, on the number of dependents supported by the worker as well as on the level of his gross income. Net spendable earnings have, therefore, been computed for 2 types of income-receivers: (1) A worker with no dependents; (2) a worker with 3 dependents.

The computations of net spendable earnings for both the worker with no dependents and the worker with 3 dependents are based upon the gross average weekly earnings for all production workers in manufacturing industries without direct regard to marital status and family composition. The

primary value of the spendable series is that of measuring relative changes in disposable earnings for 2 types of income-receivers.

² These series indicate changes in the level of average weekly earnings after adjustment for changes in purchasing power as measured by the Bureau's Consumer Price Index, the years 1947-49 being the base period.

³ Preliminary.

Note: For a description of these series, see Technical Note on the Calculation and Uses of the Net Spendable Earnings Series (Revised February 1957), which is available upon request to the Bureau of Labor Statistics.

SOURCE: U. S. Department of Labor, Bureau of Labor Statistics.

TABLE C-3. Indexes of aggregate weekly man-hours in industrial and construction activity¹
(1947-49=100)

Industry	1957							1956							Annual average	
	July ²	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	1956	1955	
Total ³	108.2	109.5	107.0	106.5	107.0	107.2	106.4	112.5	112.6	115.2	114.7	113.2	106.8	110.3	108.4	
Mining division	87.0	88.1	83.8	84.0	84.3	85.1	85.7	86.9	88.3	86.4	84.7	84.7	81.1			
Contract construction division	154.8	151.5	141.4	131.1	123.0	119.8	112.0	135.9	144.2	157.7	160.7	161.1	154.6	138.0	125.9	
Manufacturing division	102.9	104.9	103.7	104.5	106.3	106.9	107.0	110.8	109.9	111.0	109.9	108.1	101.8	108.1	107.7	
Durable goods	110.7	114.7	114.0	115.1	116.8	117.7	117.9	122.0	123.2	121.2	121.7	115.1	107.8	117.2	116.3	
Ordnance and accessories	315.2	333.9	337.0	350.9	355.6	360.9	366.3	380.4	371.9	373.6	371.8	355.0	368.7	375.3	413.2	
Lumber and wood products (except furniture)	83.3	87.8	84.0	80.1	77.0	76.3	76.2	81.8	85.8	91.4	93.7	97.5	92.7	88.8	91.1	
Furniture and fixtures	99.9	102.1	99.7	102.2	104.0	102.9	103.0	102.9	107.3	111.7	110.6	108.3	101.7	107.4	106.8	
Stone, clay, and glass products	100.9	106.2	105.4	104.1	103.9	103.2	103.8	102.8	109.3	112.2	108.9	110.9	108.2	109.3	108.2	
Primary metal industries	105.6	108.1	106.6	108.0	111.6	114.3	115.3	113.3	113.9	114.5	106.7	74.2	110.5	110.1		
Fabricated metal products (except ordnance, machinery, and transportation equipment)	112.8	116.0	114.7	115.5	116.9	117.6	117.2	121.4	119.7	121.1	117.1	111.6	106.6	116.3	118.0	
Machinery (except electrical)	105.9	109.8	111.4	114.0	116.5	117.2	116.3	117.4	113.7	114.0	114.4	112.5	112.4	115.6	106.4	
Electrical machinery	131.3	134.5	132.4	133.9	137.2	138.7	139.2	144.7	145.8	148.0	142.0	138.0	132.8	138.6	130.6	
Transportation equipment	135.8	141.7	142.9	146.5	151.3	153.8	154.1	161.0	151.6	141.3	127.6	128.8	130.2	139.0	147.7	
Instruments and related products	114.3	117.0	117.1	120.0	121.0	121.5	121.4	123.8	123.8	123.0	121.0	118.0	121.1	117.5		
Miscellaneous manufacturing industries	94.2	100.0	97.6	98.9	100.5	99.4	98.3	104.6	104.6	104.6	105.6	106.2	98.4	105.5	104.2	
Nondurable goods	93.7	93.2	91.4	91.9	93.7	94.0	94.0	97.4	97.4	97.6	100.2	101.1	99.8	94.6	97.2	
Food and kindred products	92.0	86.5	81.1	79.2	78.8	79.2	81.6	87.9	92.9	99.8	107.8	102.8	93.6	90.7	90.8	
Tobacco manufactures	69.5	70.2	70.6	67.2	72.0	80.0	85.0	91.9	92.4	101.6	107.6	94.9	72.8	85.0	90.3	
Textile-mill products	72.8	74.7	73.7	74.8	76.0	76.9	77.0	80.3	80.8	79.1	79.0	75.8	80.6	83.1		
Apparel and other finished textile products	98.6	99.6	99.1	101.6	106.7	106.3	102.6	105.5	104.9	106.3	103.9	105.9	97.7	104.5	104.9	
Paper and allied products	114.2	116.2	114.6	115.5	115.8	116.3	116.3	119.1	117.9	118.3	119.0	117.7	116.6	116.9	114.4	
Printing, publishing, and allied industries	111.6	112.8	112.7	113.8	114.5	112.8	112.6	116.8	115.1	116.3	114.7	112.9	111.0	113.0	108.7	
Chemicals and allied products	103.0	104.2	106.1	107.1	107.3	106.9	107.2	107.9	107.3	107.7	107.5	105.8	105.1	107.9	107.0	
Products of petroleum and coal	97.4	95.0	94.2	94.7	93.1	93.8	93.6	94.6	95.2	97.8	96.9	94.4	94.6	94.5		
Rubber products	103.5	101.1	102.7	96.2	107.2	109.2	111.1	112.3	98.8	110.1	106.9	103.9	101.3	106.7	112.4	
Leather and leather products	93.0	92.7	86.8	90.7	95.6	95.9	94.0	93.8	91.1	91.2	95.6	94.2	94.4	95.6		

¹ Beginning with the July 1957 issue, the data shown in this table are not comparable with those published in previous issues. See footnote 1, table A-2.

Aggregate man-hours are for the weekly pay period ending nearest the 15th of the month and do not represent totals for the month. For mining and manufacturing industries, data refer to production and related workers. For contract construction, the data relate to construction workers.

² Preliminary.

³ Includes only the divisions shown.

SOURCE: U. S. Department of Labor, Bureau of Labor Statistics.

TABLE C-4. Average hourly earnings, gross and excluding overtime, of production workers in manufacturing, by major industry group¹

Year and month	Gross	Excluding overtime ²	Gross	Excluding overtime ²	Gross	Excluding overtime ²	Gross	Excluding overtime ²	Gross	Excluding overtime ²	Gross	Excluding overtime ²	Gross	Excluding overtime ²		
	Durable goods															
	Total: manufacturing	Total: Durable goods		Ordnance and accessories		Lumber and wood products (except furniture)		Furniture and fixtures		Stone, clay, and glass products		Primary metal industries		Fabricated metal products		
1956: Average.....	\$1.98	\$1.91	\$2.10	\$2.03	\$2.19	\$2.12	\$1.76	\$1.60	\$1.60	\$1.58	\$2.36	\$2.29	\$2.07	\$1.99		
July.....	1.95	1.90	2.07	2.01	2.20	2.13	1.80	1.73	1.63	1.97	2.28	2.20	2.05	1.98		
August.....	1.98	1.91	2.10	2.03	2.20	2.13	1.81	1.73	1.70	1.97	2.36	2.30	2.07	2.00		
September.....	2.01	1.93	2.14	2.06	2.23	2.14	1.81	1.73	1.72	1.98	2.43	2.34	2.11	2.03		
October.....	2.02	1.94	2.15	2.06	2.25	2.16	1.79	1.72	1.73	1.99	2.42	2.35	2.13	2.04		
November.....	2.03	1.96	2.16	2.08	2.25	2.17	1.77	1.71	1.72	2.01	2.44	2.36	2.12	2.04		
December.....	2.05	1.98	2.18	2.09	2.27	2.18	1.74	1.68	1.73	2.01	2.45	2.37	2.14	2.06		
1957: January.....	2.05	1.98	2.18	2.10	2.28	2.21	1.72	1.66	1.72	1.67	2.02	1.95	2.47	2.39		
February.....	2.05	1.99	2.17	2.10	2.29	2.22	1.73	1.67	1.73	1.69	2.01	1.94	2.46	2.39		
March.....	2.05	1.99	2.18	2.11	2.30	2.23	1.77	1.71	1.73	1.69	2.02	1.95	2.46	2.40		
April.....	2.05	2.00	2.18	2.11	2.31	2.24	1.80	1.74	1.72	1.68	2.01	1.94	2.46	2.40		
May.....	2.06	2.00	2.18	2.12	2.31	2.25	1.82	1.76	1.73	1.69	2.02	1.95	2.46	2.40		
June.....	2.07	2.01	2.19	2.13	2.33	2.28	1.84	1.77	1.74	1.70	2.04	1.96	2.48	2.41		
July ⁴	2.07	2.01	2.20	2.14	2.34	2.30	1.82	1.75	1.74	1.69	2.05	1.97	2.52	2.46		
Durable goods—Continued																
Machinery (except electrical)	Electrical machinery		Transportation equipment		Instruments and related products		Miscellaneous manufacturing industries		Total: Non-durable goods		Food and kindred products		Tobacco manufactures			
1956: Average.....	\$2.21	\$2.12	\$1.98	\$1.92	\$2.31	\$2.23	\$2.01	\$1.96	\$1.75	\$1.69	\$1.80	\$1.75	\$1.83	\$1.76	\$1.45	\$1.43
July.....	2.20	2.11	1.98	1.93	2.30	2.23	2.02	1.97	1.74	1.70	1.82	1.76	1.83	1.76	1.51	1.49
August.....	2.21	2.12	1.98	1.93	2.31	2.24	2.02	1.97	1.74	1.69	1.81	1.75	1.80	1.73	1.42	1.41
September.....	2.25	2.15	2.01	1.94	2.36	2.27	2.05	1.99	1.76	1.70	1.82	1.76	1.81	1.73	1.38	1.36
October.....	2.25	2.15	2.02	1.95	2.37	2.27	2.05	1.99	1.78	1.71	1.83	1.77	1.84	1.76	1.39	1.37
November.....	2.25	2.17	2.03	1.97	2.39	2.27	2.05	2.00	1.78	1.72	1.84	1.78	1.89	1.81	1.45	1.43
December.....	2.27	2.17	2.05	1.98	2.43	2.30	2.07	2.01	1.79	1.73	1.86	1.80	1.90	1.82	1.48	1.45
1957: January.....	2.27	2.18	2.05	1.99	2.48	2.29	2.08	2.03	1.81	1.76	1.86	1.81	1.92	1.86	1.49	1.47
February.....	2.27	2.19	2.05	2.00	2.47	2.29	2.09	2.03	1.81	1.76	1.86	1.81	1.93	1.86	1.49	1.48
March.....	2.28	2.20	2.06	2.01	2.48	2.30	2.10	2.04	1.81	1.76	1.87	1.81	1.93	1.87	1.53	1.51
April.....	2.28	2.20	2.06	2.01	2.47	2.29	2.10	2.04	1.81	1.76	1.87	1.82	1.93	1.87	1.55	1.54
May.....	2.28	2.21	2.05	2.01	2.47	2.32	2.10	2.05	1.81	1.76	1.88	1.83	1.94	1.87	1.58	1.56
June.....	2.30	2.23	2.06	2.02	2.40	2.35	2.11	2.06	1.80	1.76	1.89	1.83	1.93	1.85	1.58	1.55
July ⁴	2.30	2.23	2.05	2.01	2.41	2.36	2.11	2.06	1.81	1.76	1.90	1.84	1.92	1.84	1.61	1.57
Non durable goods—Continued																
Textile-mill products	Apparel and other finished textile products		Paper and allied products		Printing, publishing, and allied industries ⁴		Chemicals and allied products		Products of petroleum and coal		Rubber products		Leather and leather products			
1956: Average.....	\$1.45	\$1.40	\$1.45	\$1.43	\$1.94	\$1.84	\$2.43	—	\$2.11	\$2.05	\$2.54	\$2.47	\$2.17	\$2.09	\$1.49	\$1.47
July.....	1.44	1.40	1.46	1.44	1.96	1.85	2.43	—	2.13	2.08	2.56	2.49	2.16	2.09	1.49	1.47
August.....	1.44	1.40	1.48	1.45	1.96	1.86	2.43	—	2.14	2.08	2.54	2.48	2.17	2.10	1.50	1.48
September.....	1.45	1.40	1.48	1.46	1.97	1.87	2.46	—	2.14	2.08	2.59	2.52	2.20	2.12	1.51	1.49
October.....	1.49	1.44	1.49	1.46	1.98	1.88	2.45	—	2.14	2.08	2.57	2.50	2.20	2.11	1.51	1.49
November.....	1.50	1.45	1.48	1.46	1.98	1.88	2.45	—	2.15	2.09	2.57	2.51	2.17	2.10	1.52	1.50
December.....	1.50	1.45	1.50	1.47	1.99	1.89	2.46	—	2.16	2.10	2.57	2.52	2.24	2.15	1.52	1.49
1957: January.....	1.50	1.45	1.49	1.47	1.99	1.89	2.46	—	2.16	2.11	2.59	2.54	2.23	2.15	1.52	1.50
February.....	1.50	1.46	1.49	1.47	2.00	1.90	2.48	—	2.17	2.11	2.56	2.51	2.22	2.15	1.53	1.50
March.....	1.50	1.46	1.50	1.47	2.00	1.91	2.49	—	2.17	2.12	2.57	2.52	2.21	2.14	1.54	1.51
April.....	1.50	1.46	1.48	1.46	2.00	1.91	2.49	—	2.17	2.12	2.59	2.52	2.19	2.13	1.54	1.52
May.....	1.50	1.46	1.48	1.46	2.01	1.91	2.51	—	2.20	2.14	2.61	2.54	2.22	2.16	1.54	1.52
June.....	1.50	1.46	1.49	1.46	2.03	1.94	2.51	—	2.23	2.17	2.66	2.60	2.23	2.15	1.54	1.52
July ⁴	1.50	1.46	1.50	1.45	2.06	1.95	2.51	—	2.25	2.19	2.69	2.61	2.26	2.16	1.53	1.51

¹ Beginning with the July 1957 issue, the data shown in this table are not comparable with those published in previous issues. See footnote 1, table A-2.

² Derived by assuming that the overtime hours shown in table C-5 are paid for at the rate of time and one-half.

³ Preliminary.

⁴ Average hourly earnings, excluding overtime, are not available separately for the printing, publishing, and allied industries group, as graduated overtime rates are found to an extent likely to make average overtime pay significantly above time and one-half. Inclusion of data for the industry in the non durable-goods total has little effect.

SOURCE: U. S. Department of Labor, Bureau of Labor Statistics.

TABLE C-5. Gross average weekly hours and average overtime hours of production workers in manufacturing, by major industry group¹

Year and month	Gross	Overtime ²	Gross	Overtime ²	Gross	Overtime ²	Gross	Overtime ²	Gross	Overtime ²	Gross	Overtime ²	Gross	Overtime ²
	Total: Manufacturing	Total: Durable goods	Ordnance and accessories	Lumber and wood products (except furniture)	Furniture and fixtures	Stone, clay, and glass products	Primary metal industries	Fabricated metal products						
Durable goods														
1956: Average.....	40.4	2.9	41.1	3.0	41.8	2.9	40.3	3.3	40.8	2.8	41.1	3.6	40.9	2.8
July.....	40.1	2.6	40.7	2.8	41.7	2.9	40.2	3.3	40.2	2.4	41.0	3.7	40.3	2.8
August.....	40.3	2.7	40.8	2.9	41.2	2.6	41.5	3.6	41.1	2.9	41.3	3.6	39.7	2.3
September.....	40.7	3.1	41.3	3.3	40.9	3.5	40.3	3.6	41.3	3.2	41.0	3.6	40.7	2.9
October.....	40.7	3.1	41.4	3.3	42.3	3.4	40.8	3.2	41.6	3.2	41.3	3.6	40.8	3.5
November.....	40.5	3.0	41.2	3.3	42.0	3.4	40.0	2.0	40.5	2.7	41.1	3.6	40.8	3.6
December.....	41.0	3.1	41.9	3.5	42.6	3.4	39.8	3.0	41.8	3.0	41.2	3.6	41.3	3.2
1957: January.....	40.2	2.6	40.9	2.9	42.0	2.7	39.7	2.7	39.8	2.3	40.3	2.9	40.0	2.7
February.....	40.2	2.5	40.9	2.7	42.0	2.7	39.6	2.6	40.1	2.2	40.8	2.9	40.3	2.2
March.....	40.1	2.5	40.8	2.6	41.6	2.6	39.7	2.6	40.2	2.2	40.7	3.0	40.1	2.8
April.....	39.8	2.3	40.5	2.4	41.4	2.4	40.0	2.6	39.7	2.0	40.4	2.9	39.8	2.0
May.....	39.7	2.2	40.3	2.3	40.7	2.1	40.2	2.8	39.2	1.9	40.8	3.2	39.6	1.8
June.....	40.0	2.4	40.5	2.4	40.7	2.0	40.7	3.1	39.7	2.3	40.9	3.3	40.2	2.2
July.....	39.7	2.4	40.0	2.3	40.0	1.6	39.5	2.9	39.1	2.2	40.3	3.3	39.9	2.1
Durable goods—Continued														
	Machinery (except electrical)	Electrical machinery	Transportation equipment	Instruments and related products	Miscellaneous manufacturing industries	Total: Non-durable goods	Food and kindred products	Tobacco manufactures						
1956: Average.....	42.2	3.7	40.8	2.6	41.0	2.9	40.8	2.3	40.3	2.6	39.5	2.5	41.0	3.3
July.....	41.8	3.4	40.1	2.0	40.8	2.5	40.5	2.2	39.6	2.2	39.4	2.5	41.0	3.4
August.....	41.7	3.5	40.5	2.5	40.8	2.7	40.7	2.3	40.2	2.6	39.6	2.5	41.2	3.3
September.....	42.3	3.8	41.1	2.9	41.3	3.4	41.1	2.5	40.8	2.8	39.8	2.8	42.0	3.9
October.....	42.1	3.7	41.2	3.1	41.8	3.8	41.0	2.4	40.7	3.1	39.7	2.7	41.3	3.6
November.....	41.7	3.4	41.0	2.9	42.2	4.5	40.8	2.3	40.8	2.8	39.6	2.7	41.3	3.8
December.....	42.6	3.7	41.2	2.8	43.6	4.8	41.0	2.3	40.6	2.7	39.7	2.6	40.9	3.5
1957: January.....	41.9	3.3	40.4	2.4	41.7	3.3	40.7	2.2	40.0	2.3	39.1	2.3	40.2	3.0
February.....	41.9	3.2	40.6	2.3	41.5	3.0	41.0	2.2	40.3	2.4	39.8	2.3	40.1	2.8
March.....	41.8	3.1	40.5	2.2	41.1	2.7	40.7	2.3	40.6	2.6	39.1	2.3	39.8	2.6
April.....	41.4	3.0	40.3	2.0	40.6	2.4	40.6	2.1	39.9	2.2	38.9	2.2	40.0	2.7
May.....	41.1	2.7	40.1	1.8	39.9	1.8	40.2	1.9	39.8	2.1	38.9	2.2	40.4	3.0
June.....	41.1	2.7	40.3	2.0	40.1	1.9	40.5	1.8	39.9	2.2	39.2	2.4	40.9	3.3
July ³	40.7	2.5	39.6	1.7	39.7	1.8	40.1	1.8	39.4	2.1	39.4	2.5	41.3	3.5
Nondurable goods—Continued														
	Textile-mill products	Apparel and other finished textile products	Paper and allied products	Printing, publishing, and allied industries	Chemicals and allied products	Products of petroleum and coal	Rubber products	Leather and leather products						
1956: Average.....	39.7	2.6	36.3	1.2	42.8	4.6	38.8	3.2	41.3	2.3	41.1	2.0	40.2	2.8
July.....	38.8	2.2	35.8	1.0	43.0	4.8	38.6	3.0	41.2	2.3	41.8	2.4	39.7	2.5
August.....	39.2	2.4	36.1	1.2	42.6	4.5	38.5	3.2	41.0	2.2	40.9	2.1	40.2	2.8
September.....	38.3	2.6	36.0	1.1	43.0	4.8	39.0	3.7	41.4	2.5	41.7	2.3	40.5	3.0
October.....	40.1	2.8	36.4	1.3	42.9	4.8	39.1	3.6	41.4	2.3	40.8	2.0	36.9	1.1
November.....	40.2	2.9	36.1	1.3	42.6	4.7	39.5	3.2	41.5	2.2	40.9	1.9	40.5	2.8
December.....	40.2	2.7	36.3	1.2	43.0	4.6	39.1	3.5	41.6	2.3	41.0	1.8	41.4	3.2
1957: January.....	39.1	2.3	35.9	1.1	42.3	4.3	38.8	2.8	41.3	2.2	41.1	1.6	40.9	3.0
February.....	39.2	2.5	36.3	1.2	42.4	4.3	38.5	2.9	41.2	2.1	40.8	1.6	40.9	2.7
March.....	38.9	2.3	36.5	1.2	42.3	4.2	38.8	3.2	41.2	2.2	40.7	1.6	40.4	2.6
April.....	38.6	2.1	35.7	1.1	42.1	4.2	38.5	2.9	41.2	2.3	41.2	2.2	40.0	2.4
May.....	38.4	2.0	35.8	1.0	42.0	4.0	38.4	2.9	41.2	2.2	40.9	2.2	40.0	2.5
June.....	38.9	2.3	35.8	1.1	42.2	4.1	38.6	2.8	41.2	2.2	40.9	2.0	40.9	3.1
July ³	38.6	2.1	36.2	1.1	42.3	4.6	38.2	2.7	41.0	2.2	41.6	2.3	41.2	3.9

¹ Beginning with the July 1957 issue, the data shown in this table are not comparable with those published in previous issues. See footnote 1, table A-2.² Covers premium overtime hours of production and related workers during the pay period ending nearest the 15th of the month. Overtime hours are those for which premiums were paid because the hours were in excess of the number of hours of either the straight-time workday or workweek. Weekend

and holiday hours are included only if premium wage rates were paid. Hours for which only shift differential, hazard, incentive, or other similar types of premiums were paid are excluded. These data are not available prior to 1956.

³ Preliminary.

SOURCE: U. S. Department of Labor, Bureau of Labor Statistics.

D.—Consumer and Wholesale Prices

TABLE D-1. Consumer Price Index¹—United States city average: All items and major groups of items

[1947-49 = 100]

Year and month	All items	Food	Housing	Apparel	Transportation	Medical care	Personal care	Reading and recreation	Other goods and services
1947: Average.....	95.5	95.9	95.0	97.1	90.6	94.9	97.6	95.5	96.1
1948: Average.....	102.8	104.1	101.7	103.5	100.9	100.9	101.3	100.4	100.5
1949: Average.....	101.8	100.0	103.3	99.4	108.5	104.1	101.1	104.1	103.4
1950: Average.....	102.8	101.2	106.1	98.1	111.3	106.0	101.1	103.4	105.2
1951: Average.....	111.0	112.6	112.4	106.9	118.4	111.1	110.5	106.5	109.7
1952: Average.....	113.5	114.6	114.6	105.8	126.2	117.2	111.8	107.0	115.4
1953: Average.....	114.4	112.8	117.7	104.8	129.7	121.3	112.8	108.0	118.2
1954: Average.....	114.8	112.6	119.1	104.3	128.0	125.2	113.4	107.0	120.1
1955: Average.....	114.5	110.9	120.0	103.7	126.4	128.0	115.3	106.6	120.2
1956: Average.....	116.2	111.7	121.7	105.5	128.7	132.6	120.0	108.1	122.0
1953: January.....	113.9	113.1	116.4	104.6	129.3	119.4	112.4	107.8	115.9
February.....	113.4	111.5	116.6	104.6	129.1	119.3	112.5	107.5	115.8
March.....	113.6	111.7	116.8	104.7	129.3	119.5	112.4	107.7	117.5
April.....	113.7	111.5	117.0	104.6	129.4	120.2	112.5	107.9	117.9
May.....	114.0	112.1	117.1	104.7	129.4	120.7	112.8	108.0	118.0
June.....	114.5	113.7	117.4	104.8	129.4	121.1	112.6	107.8	118.2
July.....	114.7	113.8	117.8	104.3	129.7	121.5	112.6	107.4	118.3
August.....	115.0	114.1	118.0	104.3	130.6	121.8	112.7	107.6	118.4
September.....	115.2	113.8	118.1	103.3	130.7	122.6	112.9	107.8	118.5
October.....	115.4	113.6	118.7	105.5	130.7	122.8	113.2	108.6	119.7
November.....	115.0	112.0	118.9	105.8	130.1	123.3	113.4	108.9	120.2
December.....	114.9	112.3	118.9	103.3	128.9	123.6	113.6	108.9	120.3
1954: January.....	115.2	113.1	118.8	104.9	130.5	123.7	113.7	108.7	120.3
February.....	115.0	112.6	118.9	104.7	128.4	124.1	113.9	108.0	120.2
March.....	114.8	112.1	119.0	104.3	129.0	124.4	114.1	108.2	120.1
April.....	114.6	112.4	118.5	104.1	129.1	124.9	112.9	106.5	120.2
May.....	115.0	113.3	118.9	104.2	129.1	123.1	112.1	106.4	120.1
June.....	115.1	113.8	118.9	104.2	128.9	125.1	112.7	106.4	120.1
July.....	115.2	114.6	119.0	104.0	126.7	125.2	113.3	107.0	120.3
August.....	115.0	113.9	119.2	103.7	126.6	125.5	113.4	106.6	120.2
September.....	114.7	112.4	119.5	104.3	126.4	125.7	113.5	106.5	120.1
October.....	114.5	111.8	119.5	104.6	125.0	125.9	113.4	106.9	120.1
November.....	114.6	111.1	119.5	104.6	127.6	126.1	113.6	106.8	120.0
December.....	114.3	110.4	119.7	104.3	127.3	126.3	113.6	106.6	119.9
1955: January.....	114.3	110.6	119.6	103.3	127.6	126.5	113.7	106.9	119.9
February.....	114.3	110.8	119.6	103.4	127.4	126.8	113.5	106.4	119.8
March.....	114.3	110.8	119.6	103.2	127.3	127.0	113.5	106.6	119.8
April.....	114.2	111.2	119.5	103.1	126.3	127.3	113.7	106.6	119.8
May.....	114.2	111.1	119.4	103.3	125.5	127.5	113.9	106.5	119.9
June.....	114.4	111.3	119.7	103.2	128.8	127.6	114.7	106.2	119.9
July.....	114.7	112.1	119.9	103.2	125.4	127.9	115.5	106.3	120.3
August.....	114.5	111.2	120.0	103.4	125.4	128.0	115.8	106.3	120.4
September.....	114.9	111.6	120.4	104.6	125.3	128.2	116.6	106.7	120.6
October.....	114.9	110.8	120.8	104.6	126.6	128.7	117.0	106.7	120.6
November.....	115.0	109.8	120.9	104.7	125.5	129.8	117.5	106.8	120.6
December.....	114.7	109.5	120.8	104.7	127.3	130.2	117.9	106.8	120.6
1956: January.....	114.6	109.2	120.6	104.1	126.8	130.7	118.5	107.3	120.8
February.....	114.6	108.8	120.7	104.6	126.9	130.9	118.9	107.5	120.9
March.....	114.7	109.0	120.7	104.8	126.7	131.4	119.2	107.7	121.2
April.....	114.9	109.6	120.8	104.8	126.4	131.6	119.5	108.2	121.4
May.....	115.4	111.0	120.9	104.8	127.1	131.9	119.6	108.2	121.5
June.....	116.2	113.2	121.4	104.8	126.8	132.0	119.9	107.6	121.8
July.....	117.0	114.8	121.8	105.3	127.7	132.7	120.1	107.7	122.2
August.....	116.8	113.1	122.2	105.5	126.5	133.8	120.3	107.9	122.1
September.....	117.1	113.1	122.5	106.5	126.6	134.0	120.5	108.4	122.7
October.....	117.7	113.1	122.8	106.8	132.6	134.1	120.8	108.5	123.0
November.....	117.8	112.9	123.0	107.0	133.2	134.5	121.4	109.0	123.2
December.....	118.0	112.9	123.5	107.0	133.1	134.7	121.8	109.3	123.3
1957: January.....	118.2	112.8	123.8	106.4	133.6	135.3	122.1	109.9	123.8
February.....	118.7	113.6	124.5	106.1	134.4	135.5	122.6	110.0	124.0
March.....	118.9	113.2	124.9	106.8	135.1	136.4	122.9	110.5	124.2
April.....	119.3	113.8	125.2	106.5	135.5	136.9	123.3	111.8	124.2
May.....	119.6	114.6	125.3	106.8	135.3	137.3	123.4	111.4	124.3
June.....	120.2	116.2	125.5	106.6	135.3	137.9	124.2	111.8	124.6
July.....	120.8	117.4	125.5	106.5	135.8	138.4	124.7	112.4	126.6
August.....	121.0	117.9	125.7	106.6	135.6	138.6	124.9	112.6	126.7

¹ The Consumer Price Index measures the average change in prices of goods and services purchased by urban wage-earner and clerical-worker families. Data for 46 large, medium-size, and small cities are combined for the United States average.

NOTE: For a description of this series, see Techniques of Preparing Major BLS Statistical Series, BLS Bull. 1168 (1954).

SOURCE: U. S. Department of Labor, Bureau of Labor Statistics.

TABLE D-2. Consumer Price Index¹—United States city average: Food, housing, apparel, transportation, and their subgroups

[1947-49=100]

Group	1957							1958					Annual average		
	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	1956	1955
Food ²	117.9	117.4	116.2	114.6	113.8	113.2	113.6	112.8	112.9	112.9	113.1	113.1	113.1	111.7	110.9
Food at home	116.6	116.1	114.7	113.0	112.1	111.4	112.0	111.1	111.2	111.3	111.7	111.7	111.8	110.2	109.7
Cereals and bakery products	131.0	130.8	130.6	130.4	130.1	129.8	129.1	128.0	127.4	127.4	126.8	126.6	126.3	125.6	123.9
Meats, poultry, and fish	111.9	109.5	106.9	103.7	102.0	100.6	101.4	99.0	98.0	98.8	100.8	101.3	99.9	97.1	101.6
Dairy products	111.5	110.5	110.0	110.0	110.5	110.7	111.1	111.2	111.3	111.1	110.7	109.8	109.2	108.7	105.9
Fruits and vegetables	121.3	126.9	126.8	122.5	118.7	116.1	116.5	116.9	117.4	115.8	113.9	114.8	120.7	119.0	113.5
Other foods at home ³	113.8	111.7	109.5	109.9	111.0	111.6	113.0	112.7	114.2	115.2	115.8	115.4	113.9	112.8	111.5
Housing ⁴	125.7	125.5	125.5	125.3	125.2	124.9	124.5	123.8	123.5	123.0	122.8	122.5	122.2	121.7	120.0
Rent	135.4	135.2	135.0	134.7	134.5	134.4	134.2	134.2	134.2	133.8	133.4	133.4	133.2	132.7	130.3
Gas and electricity	113.3	112.3	112.3	112.3	112.4	112.4	112.4	112.3	112.0	111.8	112.0	112.2	112.1	111.8	110.7
Solid fuels and fuel oil	135.7	135.9	135.3	135.4	138.1	139.2	139.3	138.9	136.1	134.3	132.9	130.5	129.5	130.7	125.2
Housefurnishings	103.9	104.1	104.6	104.2	105.1	104.9	105.0	104.0	104.1	103.8	103.6	103.3	102.6	103.0	104.1
Household operation	128.0	127.9	127.6	127.3	126.4	126.2	125.6	125.4	124.8	124.5	124.2	123.7	123.4	122.9	119.1
Apparel	106.6	106.5	106.6	106.5	106.5	106.8	106.1	106.4	107.0	107.0	106.8	106.5	105.5	105.5	103.7
Men's and boys	108.8	108.8	109.1	109.0	108.8	108.8	108.6	108.4	108.6	108.4	108.2	108.3	107.7	107.4	105.7
Women's and girls	98.6	98.6	98.5	98.6	98.7	99.3	98.2	98.0	99.3	100.4	100.1	99.6	98.1	98.7	98.0
Footwear	128.3	128.1	127.8	127.8	127.3	127.6	127.2	126.7	126.4	126.2	126.2	126.0	124.8	123.9	117.7
Other apparel ⁵	92.0	91.9	91.9	92.0	92.0	92.2	91.7	91.9	92.2	92.1	92.1	92.0	91.5	91.4	90.6
Transportation	135.9	135.8	135.3	135.3	135.5	135.1	134.4	133.6	133.1	133.2	132.6	128.6	128.5	128.7	126.4
Private	125.6	125.6	125.4	125.6	125.2	125.4	125.8	125.3	125.3	122.9	118.7	118.6	118.8	117.8	117.1
Public	180.6	180.2	176.8	176.8	176.9	175.8	175.8	174.9	174.1	173.4	173.0	172.9	172.2	165.7	

¹ See footnote 1, table D-1.² In addition to subgroups shown here, total food includes restaurant meals and other food bought and eaten away from home.³ Includes eggs, fats and oils, sugar and sweets, beverages (nonalcoholic), and other miscellaneous foods.⁴ In addition to subgroups shown here, total housing includes the purchase price of homes and other homeowner costs.⁵ Includes yard goods, diapers, and miscellaneous items.

SOURCE: U. S. Department of Labor, Bureau of Labor Statistics.

TABLE D-3. Consumer Price Index¹—United States city average: Special groups of items

[1947-49=100]

Year and month	All items less food	All items less shelter	All commodities	All commodities less food	Durable commodities ²	Nondurable commodities less food ³	All services less shelter	All services less shelter
1947: Average	95.1	95.6	96.3	98.7	94.9	95.7	94.5	94.7
1948: Average	101.9	103.1	103.2	102.9	101.8	103.1	100.4	100.4
1949: Average	103.0	101.3	100.6	101.5	103.3	101.1	105.1	105.2
1950: Average	104.2	102.0	101.2	101.3	104.4	100.9	108.5	108.1
1951: Average	110.8	110.5	110.3	108.9	112.4	108.5	114.1	114.6
1952: Average	113.5	112.7	111.7	109.8	113.8	109.1	119.3	120.1
1953: Average	115.7	113.1	111.2	109.9	112.3	110.1	124.1	125.1
1954: Average	116.4	113.0	110.1	108.4	107.5	110.6	127.3	128.5
1955: Average	116.7	112.4	108.7	107.1	103.7	110.6	129.4	131.4
1956: Average	118.8	114.0	109.8	108.4	103.4	113.0	132.2	135.1
1956: August	119.0	114.5	110.3	108.1	102.6	113.1	132.9	135.7
September	119.4	114.8	110.6	108.8	102.9	114.0	133.2	135.9
October	120.2	115.5	111.4	110.1	105.8	114.4	133.3	136.1
November	120.5	115.6	111.5	110.5	106.4	114.6	133.5	136.5
December	120.8	115.7	111.5	110.6	106.4	114.7	134.0	136.9
1957: January	121.0	115.9	111.6	110.7	106.7	114.7	134.5	137.6
February	121.5	116.4	112.0	110.9	106.8	115.0	135.2	138.2
March	122.0	116.5	112.1	111.3	107.1	115.5	135.8	138.7
April	122.3	116.9	112.5	111.5	107.3	115.7	136.2	139.0
May	122.3	117.1	112.7	111.1	106.7	115.5	136.7	139.5
June	122.5	117.8	113.8	111.3	106.7	115.7	137.0	139.9
July	122.8	118.5	114.1	111.5	106.5	116.2	137.4	140.6
August	123.0	118.7	114.3	111.5	106.8	115.9	137.8	141.1

¹ See footnote 1 and note, table D-1.² Includes household appliances, furniture and bedding, floor coverings, dinnerware, automobiles, tires, radio and television sets, durable toys, and sporting goods.³ Includes solid fuels, fuel oil, textile housefurnishings, household paper, electric light bulbs, laundry soap and detergents, apparel (except shoe repairs), gasoline, motor oil, prescriptions and drugs, toilet goods, nondurable toys, newspapers, cigarettes, cigars, beer, and whiskey.⁴ Includes rent, home purchase, real estate taxes, mortgage interest, property insurance, house repairs and maintenance, gas, electricity, dry cleaning, laundry service, domestic service, telephone, water, postage, shoe repairs, auto repairs, auto insurance, auto registration, transit fares, railroad fares, professional medical services, hospital services, group hospitalization, barber and beauty shop services, television repairs, and motion picture admissions.

SOURCE: U. S. Department of Labor, Bureau of Labor Statistics.

TABLE D-4. Consumer Price Index¹—United States city average: Retail prices and indexes of selected foods

Commodity	Average ² price, Aug. 1957	Indexes (1947-49=100, unless otherwise specified)														Annual average	
		1957							1956								
		Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	1956	1955	
Cereals and bakery products: Unit	Cents																
Flour, wheat.....	5 lb.	54.8	113.9	113.7	113.7	113.6	113.3	113.0	112.5	111.9	111.2	110.7	110.5	110.5	110.9	110.8	
Biscuit mix ³	20 oz.	26.8	95.8	95.7	95.7	95.8	95.0	95.7	95.9	95.7	95.6	95.5	95.5	95.2	95.4	96.3	
Corn meal.....	1 lb.	12.7	113.4	113.4	113.7	113.6	113.0	112.4	112.1	111.1	111.4	111.0	111.1	111.4	111.8	111.0	
Rice.....	1 lb.	17.5	93.7	93.3	93.1	92.9	92.7	92.2	92.2	92.2	92.2	92.2	92.2	93.1	92.8	95.2	
Rolled oats.....	20 oz.	22.2	136.4	136.0	135.7	134.5	134.7	133.6	131.7	128.5	120.2	119.5	119.2	119.2	119.3	119.1	
Corn flakes.....	12 oz.	23.2	136.0	135.4	135.0	135.1	135.1	135.0	134.5	133.4	132.6	130.2	129.2	128.5	128.9	128.0	
Bread.....	1 lb.	18.9	141.4	141.5	141.0	146.6	140.3	140.0	139.1	134.2	137.5	137.1	136.6	136.0	134.7	131.6	
Soda crackers ³	1 lb.	29.1	113.1	113.2	113.1	112.9	112.4	112.5	111.5	107.3	108.7	108.6	107.8	107.7	107.3	104.9	
Vanilla cookies.....	7 oz.	24.6	127.2	127.3	127.7	127.5	124.7	127.3	126.7	125.4	125.3	125.1	125.0	124.8	124.6	124.0	
Meats, poultry, and fish:																	
Meats:																	
Beef and veal.....		118.3	113.2	110.5	106.7	104.5	102.4	103.5	101.2	100.3	101.3	103.5	103.8	101.3	97.9	101.2	
Round steak.....	lb.	106.9	105.5	103.0	102.3	101.3	96.3	97.1	97.1	98.6	101.2	103.5	102.7	98.0	95.7	97.2	
Chuck roast.....	lb.	98.1	119.2	117.8	114.1	112.4	110.2	105.8	107.1	107.7	109.0	113.3	117.2	117.5	111.8	107.1	
Rib roast.....	lb.	54.0	97.9	96.1	94.4	94.0	92.1	88.2	89.8	88.8	93.0	96.3	98.1	96.1	89.0	87.2	
Hamburger.....	lb.	76.0	114.4	113.5	111.8	110.2	107.1	104.5	104.7	105.5	110.2	113.3	115.1	113.8	106.4	104.7	
Veal cutlets.....	lb.	44.3	91.2	89.7	87.0	84.2	82.5	80.9	80.6	80.4	80.6	81.4	82.3	81.1	79.9	81.4	
Pork.....	lb.	118.5	128.8	128.0	127.3	127.2	126.7	124.5	122.6	122.6	122.6	122.6	122.6	120.7	120.8	119.4	
Pork chops, center cut.....	lb.	91.2	114.3	110.9	105.3	102.3	101.1	103.0	98.5	98.5	98.5	98.5	98.5	98.5	98.6	98.1	
Beefsteak, sliced.....	lb.	92.9	127.6	127.3	127.5	117.0	114.2	112.0	113.9	109.7	109.7	109.1	116.9	120.9	117.3	107.6	
Hams, whole.....	lb.	87.5	120.3	111.0	103.0	98.3	94.2	93.2	95.4	88.6	84.4	83.5	84.9	83.3	81.9	89.7	
Lamb, leg.....	lb.	66.6	102.6	99.1	98.4	96.9	95.8	95.6	96.9	95.4	94.8	91.8	92.6	95.1	96.7	92.4	
Lamb, 105.5.....	lb.	72.6	105.5	105.5	107.2	105.6	104.1	97.5	99.0	98.2	98.0	98.0	102.3	101.4	103.0	102.8	
Other meats:																	
Frankfurters ³	lb.	59.3	97.7	95.0	93.0	89.7	88.4	88.1	87.8	86.6	86.0	86.2	86.1	85.9	85.2	87.1	
Luncheon meat ³ , 12-oz. can.....		45.5	94.2	93.8	93.5	92.7	91.8	90.7	89.4	87.9	90.8	93.9	84.9	83.6	84.6	89.9	
Poultry, frying chickens.....	lbs. 3	83.3	83.3	80.9	78.9	79.1	80.4	79.9	78.9	74.7	74.7	75.0	76.7	78.7	81.4	80.4	
Ready-to-cook.....	lb.	49.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Fish:																	
Fish, fresh or frozen.....		110.2	109.6	109.0	109.7	108.8	108.6	109.8	109.5	108.9	108.3	108.3	108.3	108.1	108.0	108.5	
Ocean perch fillet, frozen.....	lb.	107.8	106.8	106.0	107.2	106.0	105.4	106.7	107.3	106.7	105.8	105.7	105.6	105.3	105.5	105.4	
Haddock, fillet, frozen.....	lb.	43.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Salmon, pink.....	16-oz. can.....	62.5	180.2	130.1	129.9	129.9	129.7	129.9	130.2	129.5	129.0	128.6	128.0	128.0	128.5	125.5	
Tuna fish, chunk ³	5-1/2-oz. can.....	32.1	93.6	93.6	93.4	93.2	92.9	93.0	92.9	92.7	92.4	92.2	92.6	92.7	92.9	94.6	
Dairy products:																	
Milk, fresh, grocery.....		116.9	115.0	114.2	114.7	116.0	116.2	117.1	117.2	117.2	117.0	116.5	115.3	114.2	113.6	110.3	
Milk, homogenized, with vitamin D added.....	qt.	23.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Milk, fresh, delivered.....		121.5	120.1	119.3	119.3	120.0	120.0	121.0	121.4	121.5	121.4	120.9	119.8	119.0	118.4	113.9	
Milk, homogenized, with vitamin D added.....	qt.	24.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Ice cream ³	pt.	29.5	97.9	97.7	97.7	97.3	97.0	96.6	96.3	96.5	96.3	96.2	95.9	96.0	95.7	95.6	
Butter.....	lb.	73.7	93.2	93.2	93.4	93.3	93.6	93.8	93.8	94.0	94.6	94.3	92.9	91.5	91.1	89.2	
Cheese, American process.....	lb.	57.8	109.5	109.3	109.4	109.0	109.2	108.2	108.9	108.8	108.5	108.5	108.7	108.9	108.4	108.0	
Milk evaporated.....	14-1/2-oz. can.....	14.7	108.3	108.0	107.2	106.8	106.0	105.4	105.3	105.2	105.1	105.1	105.0	104.5	103.4	100.2	
All fruits and vegetables:																	
Frozen fruits and vegetables ³		96.3	95.8	95.9	97.2	98.7	99.6	99.8	100.3	100.4	101.1	102.5	104.1	104.5	103.1	99.5	
Strawberries ³	10 oz.	25.5	79.0	79.5	82.2	85.1	86.5	87.5	88.4	88.2	88.0	88.8	89.5	90.4	91.2	93.7	
Orange juice concentrate ³ , 6 oz. can.....		17.7	96.4	95.0	95.6	97.8	101.7	102.4	102.9	104.4	104.8	106.3	108.0	109.8	107.0	99.2	
Peas, green ³	10 oz.	19.6	100.3	100.6	100.4	102.2	100.1	102.0	103.0	103.0	103.3	103.8	104.5	104.5	102.7	102.7	
Beans, green ³	10 oz.	24.1	100.3	102.2	99.1	98.3	98.1	95.9	94.8	94.3	94.2	96.5	95.0	95.2	95.9	98.9	
Fresh fruits and vegetables.....		128.5	137.4	137.1	128.9	125.3	119.0	119.5	120.0	120.4	117.4	114.1	115.5	124.9	122.8	116.0	
Apples.....	lb.	(11)	194.8	195.2	171.9	150.1	134.6	131.7	123.3	123.5	113.9	111.5	128.0	136.9	128.9	128.5	
Bananas.....	lb.	18.6	115.6	112.2	112.4	103.6	108.8	101.1	105.5	106.8	107.5	107.8	106.1	104.8	105.0	105.0	
Oranges.....	doz.	61.3	133.6	126.8	121.2	118.1	119.4	119.0	119.2	118.1	122.6	130.1	151.0	148.1	139.5	126.7	
Lemons ³	lb.	18.1	98.1	96.5	98.2	104.0	102.5	105.9	113.2	113.4	110.3	109.8	108.3	106.6	104.0	107.5	
Grapefruit ³	each	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	97.5	
Peaches ³	lb.	16.1	99.6	123.5	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	104.0	
Strawberries ³	lb.	24.7	88.0	80.0	81.4	80.0	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	95.3	
Grapes, seedless ³	lb.	4.4	72.8	86.4	86.4	86.4	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	80.2	
Potatoes.....	10 lb.	58.6	111.0	113.3	113.3	108.1	105.3	103.7	106.0	106.3	101.2	99.4	97.6	108.9	146.4	127.8	
Sweet potatoes.....	lb.	17.5	155.6	166.3	155.1	143.8	128.6	121.6	118.2	113.4	105.6	109.6	117.6	136.1	114.9	123.1	
Onions.....	lb.	9.3	110.2	135.9	134.4	145.1	116.8	99.4	102.5	91.5	89.9	84.6	89.2	106.0	159.6	112.4	
Carrots.....	lb.	16.0	125.7	117.2	115.9	118.0	99.9	101.8	103.0	110.5	109.4	108.3	102.2	110.9	108.8	108.8	
Lettuce.....	head	21.9	153.4	130.7	125.6	107.7	105.5	95.4	117.3	129.1	145.4	167.8	125.4	111.0	102.8	113.7	
Celery ³	lb.	14.2	97.6	115.9	112.0	106.7	101.0	107.7	114.9	117.2	101.3	92.0	84.7	86.0	92.8	98.9	
Cabbage.....	lb.	8.4	121.2	124.6	125.6	132.5	153.1	138.7	125.4	120.4	107.1	97.1	100.3	104.1	107.4	119.9	
Tomatoes ³	lb.	21.7	77.2	95.7	121.1	143.4	129.4	116.5	99.3	113.7	122.8	94.5	74.8	59.2	77.2	105.4	
Tomatoes ³	lb.	20.8	98.8	109.7	99.9	128.0	124.1	153.8	146.9	129.4	130.3	110.9	102.1	86.3	81.4	119.5	
Beans, green.....	lb.	10.0	111.4	111.7	111.8	111.5	111.5	111.6	112.1	112.2	112.7	112.7	112.7	112.7	112.7	105.1	
Dried fruits and vegetables.....		105.6	106.0	106.8	106.3	106.7	107.1	107.3	108.3	108.8	108.9	108.7	108.8	107.9	104.0		
Orange juice ³ , 46-oz. can.....		34.1	108.9	110.3	113.3	115.4	116.5	118.7	120.1	122.6	124.9	126.4	124.2	124.2	120.0	107.4	
Peaches ³	1/24 can	34.8	110.8	111.3	110.8	110.7	110.4	110.3	108.7	109.7	109.9	110.1	110.5	111.1	111.0	108.0	
Pineapple ³	1/2 can	34.1	110.4	110.4	110.3	110.2	110.0	109.9	106.6	106.7	109.8	109.3	109.1	109.0	108.8	106.1	
Fruit cocktail ³	1/20 can	26.0	100.4	100.3	100.2	100.1	100.1	100									

TABLE D-4. Consumer Price Index¹—United States city average: Retail prices and indexes of selected foods—Continued

Commodity	Average price, Aug. 1957	Indexes (1947-49=100, unless otherwise specified)														
		1957							1956							
		Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	1956	1955
Other foods at home:																
Partially prepared foods: Unit Cents																
Soup, tomato ² 11-oz. can.....	12.5	99.6	99.9	99.7	99.5	99.6	99.1	98.9	98.2	97.8	97.6	97.3	97.7	99.0	98.3	98.7
Catsup, tomato ² 14 oz.....	14.7	104.2	104.1	104.3	103.3	103.5	103.1	104.1	104.0	103.2	102.4	102.8	103.2	103.2	103.0	103.9
Condiments and sauces:																
Pickles, sweet ³ 7½ oz.....	27.1	100.2	100.3	100.0	99.6	99.5	99.8	100.2	99.3	99.0	98.5	98.6	99.4	99.0	98.8	99.4
Catsup, tomato ² 14 oz.....	21.8	96.0	97.2	97.8	102.7	102.6	102.5	102.5	102.4	102.4	102.3	102.1	102.4	102.2	101.6	98.1
Beverages:																
Coffee ⁴	192.5	192.6	194.7	194.6	196.6	199.5	200.8	201.3	201.6	202.8	201.5	197.8	194.0	185.6		
Tea bags ⁴ package of 16.....	23.7	123.2	123.3	123.0	122.9	122.7	122.6	122.4	122.2	121.9	121.1	120.9	121.0	121.0	121.2	122.8
Cola drink ⁵ carton, 36 oz.....	27.0	119.1	118.7	117.8	117.5	117.1	116.5	116.3	115.0	114.3	114.2	114.2	113.9	113.8	113.0	111.9
Fats and oils:																
Shortening, hydrogenated 3-lb. can.....	86.6	86.5	86.7	87.1	87.4	88.0	87.8	86.6	85.3	84.6	84.2	84.2	84.4	83.1	81.3	
Margarine, colored 1-lb. can.....	97.6	92.7	92.8	93.6	94.0	94.3	95.3	95.4	94.1	92.6	92.2	92.2	92.4	93.3	90.5	84.7
Lard.....	29.6	77.7	77.7	78.1	78.5	79.2	80.3	80.0	79.0	77.3	76.6	76.2	76.4	76.4	75.6	75.0
Salad dressing pt.....	22.9	84.5	83.1	82.3	83.6	84.1	84.7	84.5	81.9	79.2	76.9	75.9	74.4	73.6	73.1	76.0
Peanut butter ⁶ pt.....	37.3	99.7	99.8	99.3	99.3	99.0	99.7	97.0	96.4	95.6	94.6	94.8	95.4	94.3	92.8	
Sugar and sweets:																
Sugar 5 lbs.....	109.8	109.7	109.5	109.7	109.7	109.7	109.4	109.6	109.7	109.9	109.9	110.0	109.9	109.9	110.0	
Corn syrup ⁷ 24 oz.....	12.5	113.3	113.0	112.7	112.7	112.5	112.4	112.1	111.8	110.9	110.6	110.3	109.9	109.7	109.6	112.2
Grape jelly ⁸ 12 oz.....	27.3	114.7	114.8	114.7	114.8	114.5	114.4	113.6	113.2	113.4	113.8	113.4	112.2	111.6	111.4	107.8
Chocolate bar ⁹ 1 oz.....	4.5	100.5	100.5	100.5	100.5	100.4	100.3	100.1	100.0	100.0	100.0	100.1	99.9	100.0	100.0	112.6
Eggs, grade A, large doz.....	59.6	85.4	77.5	68.8	69.9	72.3	72.4	76.9	77.0	83.8	87.7	90.7	89.9	86.5	86.3	86.8
Miscellaneous foods:																
Gelatin, flavored 3-4 oz.....	8.8	103.4	103.1	103.0	103.0	102.7	102.3	102.6	102.4	101.3	100.6	99.0	98.8	99.4	99.3	98.8

¹ See footnote 1 and Note, table D-1.² Based on prices in the 46 cities used in compiling the Consumer Price Index. Average prices for each of the 20 large cities listed in table D-5 are available upon request.³ December 1953=100.⁴ May 1953=100.⁵ Priced only in season.⁶ January 1953=100.⁷ 7 months' average.⁸ July 1953=100.⁹ 3 months' average.¹⁰ April 1953=100.¹¹ Not available.¹² 3 months' average.¹³ 5 months' average.¹⁴ June 1953=100.¹⁵ Vegetable soup priced from December 1952 through July 1956; tomato soup substituted August 1956.¹⁶ Price of 1-lb. can 101.5 cents. Price of 1-lb. bag 83.0 (priced only in chain stores and large supermarkets).¹⁷ Cola drink for July corrected to 26.9 cents.¹⁸ Corrected.

SOURCE: U. S. Department of Labor, Bureau of Labor Statistics.

TABLE D-5. Consumer Price Index¹—All items indexes for selected dates, by city

[1947-49=100]

City	Aug. 1957	July 1957	June 1957	May 1957	Apr. 1957	Mar. 1957	Feb. 1957	Jan. 1957	Dec. 1956	Nov. 1956	Oct. 1956	Sept. 1956	Aug. 1956	Annual average		
														1956	1955	
United States city average ¹	121.0	120.8	120.2	119.6	119.3	118.9	118.7	118.2	118.0	117.8	117.7	117.1	116.8	118.2	114.5	
Atlanta, Ga.....	(8)	(8)	121.2	(8)	(8)	120.6	(8)	(8)	119.5	(8)	(8)	118.9	(8)	118.1	116.3	
Baltimore, Md.....	(8)	(8)	121.2	(8)	(8)	119.9	(8)	(8)	119.5	(8)	(8)	117.5	(8)	116.9	115.2	
Boston, Mass.....	(8)	(8)	122.1	(8)	(8)	120.2	(8)	(8)	119.0	(8)	(8)	119.3	(8)	117.1	113.8	
Chicago, Ill.....	124.1	124.1	122.9	122.2	122.0	121.6	121.5	121.0	121.0	121.0	121.0	121.1	120.3	120.0	119.5	117.9
Cincinnati, Ohio.....	(8)	(8)	119.7	(8)	(8)	118.1	(8)	(8)	117.5	(8)	(8)	117.1	(8)	116.0	113.7	
Cleveland, Ohio.....	122.8	(8)	(8)	121.7	(8)	120.4	(8)	(8)	120.0	(8)	(8)	119.1	(8)	118.0	115.6	
Detroit, Mich.....	123.0	123.1	122.5	121.9	121.4	121.0	121.0	120.5	120.2	120.6	120.0	119.7	119.6	118.7	115.5	
Houston, Tex.....	122.1	(8)	(8)	121.1	(8)	120.4	(8)	(8)	119.8	(8)	(8)	118.2	(8)	117.8	113.9	
Kansas City, Mo.....	(8)	121.7	(8)	(8)	120.4	(8)	(8)	119.8	(8)	(8)	118.9	(8)	(8)	117.5	113.7	
Los Angeles, Calif.....	121.2	121.1	121.0	120.8	120.6	120.4	120.3	119.6	119.4	119.1	118.5	117.8	117.4	117.4	115.6	
Minneapolis, Minn.....	(8)	121.6	(8)	(8)	119.8	(8)	(8)	119.4	(8)	(8)	117.4	(8)	(8)	117.0	116.8	
New York, N. Y.....	118.7	118.4	117.9	117.2	116.9	116.0	115.9	115.5	115.6	115.7	115.1	114.4	113.9	112.2		
Philadelphia, Pa.....	121.6	121.2	120.1	119.8	119.7	120.0	119.7	118.8	118.6	118.2	118.6	118.4	117.9	117.0	115.5	
Pittsburgh, Pa.....	(8)	120.7	(8)	(8)	118.8	(8)	(8)	118.8	(8)	(8)	118.2	(8)	(8)	116.5	113.8	
Portland, Oregon.....	(8)	122.2	(8)	(8)	121.6	(8)	(8)	120.1	(8)	(8)	119.5	(8)	(8)	118.0	115.1	
St. Louis, Mo.....	(8)	(8)	121.3	(8)	(8)	120.2	(8)	(8)	119.1	(8)	(8)	118.1	(8)	117.2	116.0	
San Francisco, Calif.....	(8)	(8)	122.8	(8)	(8)	122.3	(8)	(8)	121.6	(8)	(8)	119.0	(8)	118.4	115.6	
Scranton, Pa.....	117.8	(8)	(8)	116.4	(8)	(8)	115.5	(8)	(8)	114.9	(8)	(8)	113.5	112.9	111.4	
Seattle, Wash.....	123.7	(8)	(8)	122.8	(8)	(8)	122.2	(8)	(8)	120.2	(8)	(8)	118.8	118.1	116.7	
Washington, D. C.....	119.1	(8)	(8)	117.2	(8)	(8)	117.5	(8)	(8)	115.9	(8)	(8)	115.7	114.9	113.6	

¹ See footnote 1 and Note, table D-1. Indexes measure time-to-time changes in prices of goods and services purchased by urban wage-earner and clerical-worker families. They do not indicate whether it costs more to live in one city than in another.² Average of 46 cities.³ Indexes are computed monthly for 5 cities and once every 3 months on a rotating cycle for the 15 remaining cities.

SOURCE: U. S. Department of Labor, Bureau of Labor Statistics.

TABLE D-6. Consumer Price Index¹—Food and its subgroups, by city

[1947-49=100]

City	Total food ²			Food at home									
				Total food at home			Cereals and bakery products			Meats, poultry, and fish			
	Aug. 1957	July 1957	Aug. 1956	Aug. 1957	July 1957	Aug. 1956	Aug. 1957	July 1957	Aug. 1956	Aug. 1957	July 1957	Aug. 1956	
United States city average ³	117.9	117.4	113.1	116.6	116.1	111.8	131.0	130.8	126.3	111.9	109.5	99.9	
Atlanta, Ga.	115.8	114.7	112.1	114.8	113.5	111.2	124.0	123.8	117.6	115.5	113.0	103.0	
Baltimore, Md.	118.4	118.7	114.1	115.5	115.8	111.9	127.3	127.2	121.8	112.3	109.4	101.0	
Boston, Mass.	117.5	118.2	122.8	115.7	116.5	110.9	131.1	131.1	123.6	123.6	107.2	100.5	
Chicago, Ill.	115.0	115.6	110.9	113.0	113.7	109.1	122.6	123.1	120.7	105.1	103.6	93.2	
Cincinnati, Ohio	120.2	120.5	114.7	119.1	119.4	112.7	131.8	131.9	124.6	114.8	112.2	101.3	
Cleveland, Ohio	115.9	115.3	111.6	114.2	113.6	109.9	124.0	123.7	122.2	108.2	105.9	97.2	
Detroit, Mich.	118.4	119.8	115.6	117.8	118.5	114.3	124.9	124.9	120.0	108.6	106.1	98.1	
Houston, Tex.	115.3	114.3	110.2	113.8	112.6	108.9	121.4	121.1	117.6	107.4	104.9	94.5	
Kansas City, Mo.	114.3	114.1	109.9	112.7	112.4	108.3	126.4	126.6	121.1	106.7	106.7	95.9	
Los Angeles, Calif.	118.9	117.7	113.4	115.6	114.7	109.9	139.0	138.7	131.1	112.9	109.7	99.9	
Minneapolis, Minn.	115.6	115.4	113.0	114.4	114.2	112.5	129.6	129.6	126.3	104.5	102.6	95.3	
New York, N. Y.	117.7	117.3	112.6	115.9	115.4	110.9	135.1	135.1	130.3	111.7	109.8	101.8	
Philadelphia, Pa.	121.5	121.1	115.9	119.7	119.3	114.4	133.2	132.7	129.9	114.0	112.1	103.2	
Pittsburgh, Pa.	118.9	119.2	114.5	117.6	118.0	113.1	129.3	129.1	125.1	110.4	108.5	99.2	
Portland, Oreg.	119.0	118.5	115.6	117.9	117.3	114.7	134.7	132.0	130.1	115.2	111.5	102.5	
St. Louis, Mo.	118.1	118.3	113.3	115.3	115.6	111.4	125.1	124.9	120.3	109.1	106.6	97.1	
San Francisco, Calif.	118.2	118.2	114.7	116.9	116.9	113.4	139.9	140.1	137.4	114.0	111.8	104.8	
Scranton, Pa.	116.1	115.7	110.5	116.2	115.7	110.0	127.0	126.9	124.4	112.7	109.7	99.7	
Seattle, Wash.	119.1	118.6	114.9	118.4	118.2	114.4	140.4	137.9	136.8	112.3	109.6	100.4	
Washington, D. C.	120.0	119.4	113.7	118.3	117.6	112.0	129.8	129.6	122.5	111.2	109.7	97.1	
Food at home—Continued													
City	Dairy products			Fruits and vegetables			Other foods at home ⁴				Aug. 1957	July 1957	Aug. 1956
	Aug. 1957	July 1957	Aug. 1956	Aug. 1957	July 1957	Aug. 1956	Aug. 1957	July 1957	Aug. 1956	Aug. 1957	July 1957	Aug. 1956	
United States city average ³	111.5	110.5	109.2	121.3	126.9	120.7	113.8	111.7	113.9				
Atlanta, Ga.	110.3	110.2	112.7	122.7	124.0	125.5	105.8	103.2	106.0				
Baltimore, Md.	112.5	112.6	109.2	115.2	124.9	121.4	113.6	111.8	113.6				
Boston, Mass.	116.1	114.7	111.4	119.4	120.9	118.7	110.0	108.7	108.1				
Chicago, Ill.	111.1	109.6	110.2	118.5	128.8	118.5	118.1	116.1	120.0				
Cincinnati, Ohio	114.7	114.7	113.7	122.1	133.0	119.7	119.3	116.2	120.8				
Cleveland, Ohio	104.3	104.4	104.3	121.3	124.2	116.9	117.2	115.6	118.5				
Detroit, Mich.	111.7	109.3	110.7	130.3	146.0	132.8	116.1	113.5	117.3				
Houston, Tex.	112.0	109.2	109.1	121.7	124.3	121.5	112.0	110.5	112.2				
Kansas City, Mo.	107.9	107.9	111.2	119.1	124.4	115.5	107.0	104.7	108.0				
Los Angeles, Calif.	105.5	105.5	103.5	114.1	117.7	113.3	113.6	111.6	111.8				
Minneapolis, Minn.	104.6	104.7	111.4	124.7	130.9	125.1	120.6	117.7	121.2				
New York, N. Y.	112.4	109.1	106.8	116.9	120.6	113.7	113.2	112.4	114.2				
Philadelphia, Pa.	117.0	116.7	111.4	127.2	129.7	123.5	113.2	112.7	114.0				
Pittsburgh, Pa.	111.9	111.8	107.6	120.8	129.4	123.6	123.0	121.3	122.8				
Portland, Oreg.	117.2	117.2	113.7	110.2	119.6	117.0	118.2	114.5	119.3				
St. Louis, Mo.	102.7	102.7	104.8	124.1	134.3	124.4	120.8	118.2	121.9				
San Francisco, Calif.	109.8	109.8	106.1	117.5	124.5	119.6	112.8	110.2	111.9				
Scranton, Pa.	110.5	110.5	105.2	123.5	127.7	118.0	111.1	110.2	111.0				
Seattle, Wash.	118.4	118.4	113.0	117.9	126.2	122.9	113.8	111.7	114.1				
Washington, D. C.	116.6	116.6	115.3	125.0	125.4	120.5	114.6	113.5	114.3				

¹ See footnote 1, table D-1.² See footnote 2, table D-2.³ Average of 46 cities.⁴ See footnote 3, table D-2.

Revised.

SOURCE: U. S. Department of Labor, Bureau of Labor Statistics.

TABLE D-7. Indexes of wholesale prices, by major groups

[1947-49=100]

Year and month	All commodities	Farm products	Processed foods	All commodities other than farm and foods	Textile products and apparel	Hides, skins, leather, and leather products	Fuel, power, and lighting materials	Chemicals and allied products	Rubber and rubber products	Lumber and wood products	Pulp, paper, and allied products	Metals and metal products	Machinery and motive products	Furniture and other household durables	Nonmetallic mineral structural	Tobacco manufacturers and bottlers, beer-wines	Miscellaneous products
1947	95.4	100.0	98.2	95.3	100.1	101.0	90.9	101.4	93.7	98.6	91.9	92.5	95.6	93.9	97.2	100.8	
1948	104.4	107.3	106.1	103.4	104.4	102.1	107.1	103.8	102.1	102.9	103.9	101.9	101.4	101.7	100.5	103.1	
1949	99.2	92.8	95.7	101.3	99.2	104.6	99.2	104.6	103.0	120.5	113.9	109.9	104.8	106.6	103.1	96.1	
1950	103.1	97.5	99.8	105.0	104.4	99.2	104.6	103.0	105.3	109.5	114.0	108.6	105.3	106.5	103.5	96.6	
1951	114.8	113.4	111.4	115.9	110.6	120.3	106.7	110.0	104.5	123.9	119.6	122.8	119.0	114.1	113.6	104.9	
1952	111.6	107.0	108.8	113.2	109.8	99.8	97.2	106.6	104.5	134.0	120.3	115.6	123.0	121.5	122.0	111.8	
1953	110.1	97.0	104.6	114.0	97.3	98.5	105.5	105.7	109.5	120.2	111.1	109.5	123.0	114.2	118.2	108.3	
1954	110.3	95.6	103.3	113.5	95.5	98.2	94.2	102.1	107.0	126.9	118.1	126.6	124.5	115.4	120.9	97.8	
1955	110.7	89.6	101.1	117.0	95.5	93.8	107.9	106.6	104.8	123.6	116.3	120.9	124.5	115.9	124.2	102.5	
1956	114.3	88.4	101.7	122.2	95.8	95.3	111.2	107.2	145.8	125.4	119.3	128.4	115.9	124.2	121.6	92.0	
1957	116.9	89.3	104.3	125.2	95.8	98.4	116.3	108.7	145.0	121.3	128.6	152.2	143.9	121.9	132.0	93.2	
January	109.9	99.6	105.5	113.1	98.8	97.3	107.5	103.6	127.3	120.5	115.8	124.0	121.5	112.7	111.9	103.0	
February	109.6	97.9	105.2	113.3	98.5	98.0	108.1	103.6	126.2	121.1	115.3	121.6	121.6	112.9	114.6	101.2	
March	110.0	99.8	104.1	113.4	97.5	98.1	108.4	104.2	125.7	121.7	115.1	125.5	121.8	113.1	114.8	101.7	
April	109.4	97.3	103.2	113.2	97.4	97.9	107.4	105.5	124.8	122.2	115.3	125.0	122.0	113.9	114.8	98.5	
May	109.8	97.8	104.3	113.6	97.6	100.4	107.1	105.5	125.4	121.8	115.4	125.7	122.4	114.1	117.2	99.7	
June	109.5	95.4	103.3	113.9	97.4	101.0	108.3	105.6	125.0	121.5	115.8	126.9	122.9	114.3	114.9	95.8	
July	110.9	97.9	105.5	114.8	97.5	100.0	111.1	106.2	124.6	121.1	115.8	129.3	123.4	114.7	119.4	105.6	
August	110.6	96.4	104.8	114.9	97.5	99.9	111.0	106.2	123.5	120.4	116.2	124.9	123.7	114.8	119.6	96.4	
September	111.0	98.1	106.6	114.7	96.9	99.7	110.9	106.7	124.0	119.2	116.9	128.5	124.0	114.9	120.7	94.7	
October	110.2	95.3	104.7	114.6	96.5	97.1	111.2	106.7	124.2	118.1	117.5	127.9	124.1	114.8	120.7	108.1	
November	109.8	93.7	103.8	114.5	96.2	97.1	111.2	107.2	124.3	117.8	117.3	127.9	124.2	114.9	120.8	93.2	
December	110.1	94.4	104.3	114.6	95.8	95.6	111.1	107.1	124.8	117.4	117.1	127.5	124.3	115.0	120.8	100.1	
1958	110.9	97.8	106.2	114.6	96.1	95.3	110.8	107.2	124.8	117.0	117.0	127.2	124.4	115.2	120.9	101.1	
January	110.5	97.7	104.8	114.4	95.3	94.9	110.5	107.5	124.6	116.8	117.1	124.5	121.5	118.0	120.8	102.8	
February	110.5	95.4	105.3	114.2	95.0	94.7	109.2	107.4	124.9	116.7	116.6	126.3	124.5	115.0	121.0	117.9	
March	111.0	99.4	105.9	115.5	94.7	94.6	108.6	107.2	125.0	116.2	116.3	126.8	124.4	115.6	120.8	110.3	
April	110.9	97.9	106.8	114.5	94.8	96.0	108.2	107.1	125.1	116.1	115.8	127.1	124.4	115.5	119.3	109.2	
May	110.0	94.8	104.0	114.2	94.9	95.6	107.8	106.8	126.1	116.3	115.8	127.1	124.3	115.4	120.4	101.5	
June	110.4	95.2	106.5	114.3	95.1	94.9	106.2	107.2	126.8	119.1	116.2	128.0	124.3	115.3	120.4	103.9	
July	110.5	95.8	106.4	114.4	95.3	94.0	106.9	106.8	126.4	119.1	116.3	126.8	124.3	115.3	120.5	121.5	
August	110.0	93.6	105.5	114.4	95.3	93.0	106.9	106.8	126.9	119.3	116.3	129.1	124.4	115.3	121.5	99.1	
September	109.7	93.1	103.7	114.5	95.4	92.4	106.9	106.9	128.5	119.8	116.3	129.7	124.3	115.6	121.9	96.7	
October	110.0	93.2	103.8	114.8	95.2	92.8	107.4	107.0	131.4	119.9	116.0	129.9	123.3	115.6	121.8	97.0	
November	110.8	92.9	103.5	114.9	95.2	91.8	107.5	107.0	132.0	120.0	115.9	126.8	125.7	115.7	121.8	98.0	
December	110.5	92.5	103.2	115.2	95.2	92.3	108.7	107.1	135.8	121.2	115.6	131.5	126.1	115.4	121.8	97.1	
1959	111.0	92.5	103.8	115.2	95.2	91.9	108.5	107.1	135.8	120.3	116.3	130.1	125.8	115.5	122.0	121.4	
January	110.4	93.1	103.2	115.7	95.2	92.3	108.7	107.1	140.6	121.2	116.5	131.5	126.1	115.4	121.6	97.1	
February	110.0	92.1	101.6	115.6	95.3	92.2	108.5	106.8	138.0	121.4	115.8	131.9	126.1	115.1	121.6	95.6	
March	110.5	94.2	102.5	115.7	95.0	93.2	107.4	107.1	138.3	122.4	117.4	132.9	126.3	115.1	122.3	94.0	
April	109.9	91.2	102.1	115.5	95.0	92.9	107.0	106.8	138.0	123.2	117.7	132.5	126.7	115.1	123.2	91.3	
May	110.3	91.8	103.9	115.6	95.2	92.9	106.8	106.8	140.3	123.7	118.3	132.6	127.1	115.2	123.7	89.1	
June	110.5	89.5	103.1	116.5	95.3	93.7	106.4	106.0	143.4	124.1	119.0	136.7	127.5	115.5	125.3	90.8	
July	110.9	88.1	101.9	117.5	95.3	93.8	107.2	105.9	145.7	124.1	119.7	139.5	128.5	116.0	126.1	89.8	
August	111.7	89.3	101.5	118.5	95.4	94.0	108.0	106.0	151.7	125.7	120.5	141.9	130.0	116.4	126.6	90.3	
September	111.6	86.8	100.2	119.0	95.4	95.3	108.0	106.5	147.8	125.4	122.8	142.4	131.4	116.9	126.8	91.5	
October	111.2	84.1	98.8	119.4	95.6	96.4	108.6	106.6	150.6	123.0	122.3	142.9	132.5	117.2	125.2	88.0	
November	111.3	82.9	98.2	119.8	95.6	96.7	109.3	106.6	151.0	123.6	123.6	143.9	133.0	117.3	125.4	88.8	
December	111.9	84.1	98.3	120.4	95.7	96.7	111.0	106.3	148.4	126.3	124.8	145.1	133.3	118.0	127.0	86.6	
1956	112.4	86.0	99.0	120.6	96.0	97.1	111.2	106.4	147.1	126.7	125.4	145.1	133.9	118.2	127.1	88.7	
January	112.8	86.6	99.2	121.0	95.9	97.7	110.9	106.5	146.2	128.0	126.8	146.5	134.7	118.1	127.9	88.2	
February	112.5	88.6	99.2	121.1	95.9	97.7	110.9	106.5	146.2	128.0	127.9	146.5	134.7	118.1	127.7	91.3	
March	113.6	88.0	100.4	121.6	95.1	100.6	110.6	106.9	145.0	128.5	127.4	147.7	135.7	118.0	128.6	92.1	
April	114.4	90.9	102.4	121.7	94.9	100.0	110.8	106.9	145.3	128.0	127.3	146.8	136.5	118.0	128.6	96.1	
May	114.2	91.2	102.3	121.5	94.9	100.2	110.5	107.1	142.8	127.3	127.4	145.8	136.8	118.1	128.9	92.9	
June	114.0	90.0	102.2	121.4	94.9	100.1	110.7	107.3	143.3	126.6	127.4	144.9	136.9	118.3	128.6	91.3	
July	114.0	89.1	102.6	122.5	94.8	100.0	110.9	107.3	146.9	125.2	127.9	147.9	137.7	119.1	130.8	92.5	
August	114.7	89.1	104.0	123.1	94.8	100.2	111.1	107.1	145.7	123.6	127.9	151.9	139.7	119.7	131.1	89.9	
September	115.5	90.1	104.0	123.1	94.8	100.2	111.1	107.1	147.5	123.6	127.9	151.9	139.7	119.7	132.8	89.9	
October	115.6	88.4	104.6	123.6	95.3	99.7	111.7	107.7	145.8	122.0	128.1	152.2	141.1	121.0	131.5	89.2	
November	115.9	87.9	103.6	124.2	95.4	99.8	111.2	108.2	146.3	121.5	127.8	152.1	143.4	121.1	131.2	91.2	
December	116.3	88.9	103.1	124.7	95.6	99.2	114.0	108.3	147.9	121.0	128.0	152.3	143.6	121.2	133.6	91.7	
1957	116.9	89.3	104.3	125.2	95.8	98.4	116.3	108.7	145.0	121.3	128.6	152.2	143.9	121.9	132.0	93.2	
January	117.0	88.8	103.9	125.5	95.7	98.0	119.6	108.8	143.9	120.7	128.5	151.4	144.5	121.9	132.7	92.4	
February	116.9	88.8	103.7	125.4	95.4	98.4	119.2	108.8	144.3	120.7	128.7	151.0	144.8	121.9	132.2	92.0	
March	116.9	88.8	104.3	125.4	95.3	98.8	119.5	109.0	144.6	120.9	128.6	151.1	145.0	121.5	132.5	91.6	
April	117.2	90.6	104.3	125.4	95.4	98.0	119.5	109.5	144.6	120.9	128.6	151.1	145.0	121.5	132.5	91.6	
May	117.1	89.5	104.1	125.2	95.4	99.0	118.5	108.1	144.7	121.4	128.9	150.0	145.1	121.6	135.0	91.4	
June	117.4	89.9	106.1	125.2	95.5	99.9	117.2	109.3	145.1	119.7	128.8	150.6	145.2	121.6	135.1	91.4	
July	*118.2	*92.8	107.2	*125.7	95.4	*100.7	*116.4	*109.5	144.9	119.3	*129.5</						

TABLE D-8. Indexes of wholesale prices, by group and subgroup of commodities¹

[1947-49=100]

Commodity group	1957										1956						Annual avg.	
	Aug. ²	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	1956	1955			
All commodities.....	118.3	*118.2	117.4	117.1	117.2	116.9	117.0	116.9	116.3	115.9	115.6	115.5	114.7	114.3	110.7			
Farm products.....	93.0	*92.8	90.9	89.5	90.6	88.8	88.8	89.3	88.9	87.9	88.4	90.1	89.1	88.4	82.6			
Fresh and dried fruits and vegetables.....	106.3	*108.0	105.4	109.0	103.0	94.8	94.8	102.6	102.6	95.3	94.8	104.2	104.1					
Grains.....	82.4	82.7	83.9	83.4	87.3	87.5	87.0	89.5	88.8	87.9	84.0	90.7	88.8	87.0				
Livestock and live poultry.....	86.7	86.5	83.5	78.7	79.3	76.6	75.0	73.9	71.7	68.6	73.0	75.7	76.0	71.3	75.8			
Plant and animal fibers.....	104.0	105.0	104.8	104.3	104.0	103.9	102.9	101.3	100.8	100.0	98.0	98.4	98.2	102.8	102.4			
Fluid milk.....	94.9	93.1	92.0	92.2	95.0	95.6	97.5	98.1	99.0	98.8	97.2	96.1	95.1	94.5	91.5			
Eggs.....	79.7	76.2	61.0	57.5	68.5	63.8	66.3	65.7	74.3	79.3	87.4	91.2	77.7	81.9	85.7			
Hay, hayseeds, and oil seeds.....	81.3	82.4	83.3	84.4	85.2	85.1	84.7	86.6	85.4	84.0	78.6	76.5	80.1	82.6	84.9			
Other farm products.....	142.9	142.9	145.7	144.1	144.7	146.0	148.2	148.8	147.9	147.4	149.9	152.9	151.1	146.9	142.5			
Processed foods.....	106.7	107.2	106.1	104.9	104.3	103.7	103.9	104.3	103.1	103.6	103.6	104.0	102.6	101.7	101.7			
Cereal and bakery products.....	116.7	117.7	117.0	116.5	116.8	115.6	115.9	115.3	115.4	115.8	115.3	114.6	114.5	115.2	116.2			
Meats, poultry, and fish.....	97.7	99.2	96.6	91.5	88.2	84.6	83.9	84.8	81.5	82.7	85.7	89.3	85.1	81.6	84.8			
Dairy products and ice cream.....	110.2	*108.2	101.8	110.7	111.4	111.3	112.5	112.5	112.6	113.6	110.9	109.7	108.9	108.6	106.1			
Canned and frozen fruits and vegetables.....	102.1	102.3	101.9	103.5	104.9	105.9	105.9	105.6	106.4	106.4	106.4	107.3	107.9	105.5				
Sugar and confectionery.....	113.1	114.3	113.5	112.8	112.1	112.3	112.0	113.1	112.3	111.8	110.8	110.0	109.8	109.8	110.5			
Packaged beverage materials.....	183.7	183.7	183.7	183.7	190.9	194.5	196.3	196.3	201.6	201.6	198.1	197.2	197.1	197.2	180.1			
Animal fats and oils.....	74.3	76.2	72.1	70.3	73.3	78.8	83.4	84.3	74.4	75.5	72.7	72.2	69.8	67.7				
Crude vegetable oils.....	62.3	65.3	68.8	62.9	65.4	67.6	71.7	73.8	72.0	70.4	65.9	59.4	60.3	68.5	62.2			
Refined vegetable oils.....	66.1	66.9	65.5	65.4	70.1	78.2	75.5	78.5	73.9	74.4	70.2	66.0	67.5	73.4	71.2			
Vegetable oil end products.....	84.1	84.3	84.9	85.2	86.1	89.2	89.5	89.4	86.2	83.7	85.3	85.3	85.4	85.3	81.4			
Other processed foods.....	95.1	94.8	95.4	95.3	95.2	95.1	95.7	95.0	95.7	95.3	95.3	95.9	96.1	96.8	96.6			
All commodities other than farm and foods.....	125.9	*125.7	125.2	125.2	125.4	125.5	125.2	124.7	124.2	123.6	123.1	122.5	122.2	117.0				
Textile products and apparel.....	95.4	95.5	95.4	95.3	95.4	95.7	95.8	95.6	95.4	95.3	94.8	94.8	95.3	95.3	95.3			
Cotton products.....	90.3	90.5	90.6	90.7	90.8	91.1	91.9	90.6	92.7	92.8	91.7	91.5	91.9	93.0	91.5			
Wool products.....	111.2	111.3	111.5	110.9	109.9	109.0	109.5	109.1	107.7	106.1	104.8	103.9	103.4	103.7	104.7			
Manmade fiber textile products.....	82.0	*81.9	81.9	81.8	81.5	81.7	82.0	82.1	80.5	80.3	80.9	80.4	80.3	81.4	86.6			
Silk products.....	122.0	121.5	122.4	124.7	124.8	123.0	123.2	122.8	122.8	122.7	123.6	120.1	121.0	121.9	123.8			
Apparel.....	99.6	99.5	99.5	99.5	99.6	99.6	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.5			
Other textile products.....	75.7	75.8	76.8	76.5	75.9	76.1	75.9	76.8	75.8	76.7	76.2	75.3	74.7	72.2	74.5			
Hides, skins, leather, and leather products.....	100.5	*100.7	99.9	99.8	98.4	98.0	98.4	99.2	99.8	99.7	100.2	100.0	99.3	99.3	99.8			
Hides and skins.....	61.5	62.1	59.4	58.1	51.8	50.1	52.1	53.8	59.0	57.8	63.3	64.0	69.2	56.6				
Leather.....	91.6	92.2	91.1	88.8	88.6	88.6	87.8	88.2	90.9	90.6	90.8	90.8	91.2	84.6				
Footwear.....	121.3	121.2	121.2	121.1	121.5	120.9	120.8	120.8	120.8	120.8	120.7	120.5	120.5	119.3	112.3			
Other leather products.....	98.6	*98.5	97.3	97.5	97.8	97.8	97.4	97.4	98.3	98.6	98.5	98.9	98.6	95.9	95.9			
Fuel, power, and lighting materials.....	116.0	*116.4	117.2	118.5	119.5	119.2	119.6	116.3	114.0	111.2	111.7	111.1	110.9	111.2	107.9			
Coal.....	124.4	124.0	123.3	123.3	123.2	123.6	124.0	123.5	123.5	122.5	122.6	121.0	122.1	121.4	118.1			
Coke.....	161.9	161.9	161.9	161.9	161.9	162.2	159.1	156.3	156.3	156.3	156.3	152.9	152.9	149.7	135.2			
Gas.....	111.8	111.8	113.0	116.5	118.4	118.4	122.3	119.9	119.9	111.1	111.1	110.3	104.4	111.5	111.6			
Electricity.....	95.5	*95.6	94.3	94.9	96.6	94.9	94.3	94.9	94.3	94.3	94.9	94.9	94.9	94.2	97.0			
Petroleum and products.....	125.5	126.4	128.4	130.8	130.1	130.1	130.1	129.0	129.0	117.5	118.3	118.4	118.3	118.3	112.7			
Chemicals and allied products.....	109.7	*109.5	109.3	109.1	109.1	108.8	108.8	108.7	108.3	107.8	107.7	107.1	107.3	107.2	106.6			
Industrial chemicals.....	123.6	123.5	124.0	123.6	123.6	122.9	123.2	123.5	122.5	122.5	122.6	121.0	122.1	121.4				
Prepared paint.....	128.1	128.1	125.5	124.7	124.1	124.1	124.1	124.1	124.1	123.6	122.4	119.1	119.1	120.0	114.5			
Paint materials.....	100.5	99.9	99.7	99.8	99.8	100.1	100.6	99.0	99.5	99.4	98.8	98.3	98.6	98.6				
Drugs and pharmaceuticals.....	93.4	93.4	93.4	93.4	93.3	93.5	93.2	93.1	92.6	92.5	92.3	91.9	92.2	92.2	92.8			
Fats and oils, inedible.....	63.5	61.0	60.2	59.2	58.2	57.9	58.0	58.7	59.4	57.8	55.8	55.4	53.8	56.2	56.6			
Mixed fertilizer.....	110.5	108.3	108.3	108.4	108.6	108.5	109.3	110.2	109.3	109.6	109.5	109.6	109.6	107.7	108.7			
Fertilizer materials.....	106.5	106.3	106.3	107.2	107.5	106.8	105.9	105.9	105.7	105.7	105.7	104.1	104.5	106.0	108.4			
Other chemicals and allied products.....	105.4	*105.4	105.0	105.2	105.2	105.1	104.4	104.4	103.6	103.6	103.6	103.4	103.8	103.2	106.0			
Rubber and rubber products.....	146.7	144.9	145.1	144.7	144.5	144.3	143.9	145.0	147.9	146.9	145.8	145.7	146.9	145.8	143.8			
Crude rubber.....	144.3	145.0	145.9	144.0	143.2	142.0	142.0	145.4	151.1	147.0	141.9	142.2	149.9	146.7	156.8			
Tires and tubes.....	153.5	153.5	149.0	149.0	149.0	149.0	149.0	148.5	153.4	153.4	153.4	153.4	153.4	152.2	144.9			
Other rubber products.....	140.5	140.0	139.9	139.0	140.0	140.0	140.0	140.0	139.7	139.5	139.5	139.1	138.1	138.0	134.4			
Lumber and wood products.....	118.7	119.3	119.7	119.7	120.2	120.1	120.7	121.3	121.0	121.2	122.0	122.0	123.6	125.2	125.4	123.6		
Lumber.....	119.6	120.0	120.4	121.2	121.2	121.2	121.2	121.2	122.5	122.5	123.1	123.6	122.5	127.1	124.4			
Millwork.....	128.3	*128.3	128.5	128.3	128.3	128.7	128.7	128.7	128.5	128.5	128.5	129.2	129.5	129.1	128.7			
Plywood.....	94.9	96.9	97.7	96.8	96.7	96.2	97.1	94.6	94.8	94.8	96.1	99.2	99.2	101.7	105.4			
Pulp, paper, and allied products.....	129.9	*129.5	128.9	128.6	128.7	128.5	128.6	128.6	128.0	127.8	128.1	127.9	127.9	127.2	119.3			
Woodpulp.....	118.0	118.0	118.0	118.0	118.0	118.0	118.0	118.0	118.0	118.0	118.0	118.0	118.0	117.7	112.9			
Wastepaper.....	74.7	68.0	66.1	66.1	68.6	75.4	76.4	77.3	78.3	77.3	79.3	77.5	77.5	76.5	77.5			
Paper.....	143.2	142.8	142.4	142.4	140.7	140.1	139.2	139.2	139.2	139.2	139.2	139.1	139.1	138.9	138.2	137.3	129.8	
Paperboard.....	136.2	136.2	136.2	136.2	136.2	136.2	136.2	136.2	136.2	136.2	136.2	136.3	136.3	136.4	134.8	127.1		
Converted paper and paperboard products.....	126.5	*126.1	125.3	125.3	125.2	125.6	125.6	125.6	125.6	124.5	124.3	124.3	124.3	123.8	123.7	123.1	113.9	
Building paper and board.....	141.7	141.7	141.7	141.7	141.7	141.1	141.1	141.1	141.1	141.1	141.1	141.1	141.1	138.1	138.1	136.9	130.9	
Metals and metal products.....	152.9	152.4	150.6	150.1	151.0	151.4	152.2	152.3	152.1	152.2	152.3	151.9	150.2	148.4	146.6			
Iron and steel.....	170.6	170.3	165.4	162.9	161.9	163.8	163.9	164.3	163.6	162.5	162.5	161.1	161.5	159.4	154.7	140.6		
Nonferrous metals.....	134.6	138.1	139.9	142.5	143.2	145.4	148.7	149.6	149.7	154.1	154.8	155.4	156.1	142.7				
Metal containers.....	153.1	152.8	152.5	152.5	148.0	148.0	147.4	147.5	147.5	147.5	147.5	147.5	147.5	147.5	147.5			
Hardware.....	165.8	164.5	164.3	164.3	163.5	1												

TABLE D-8. Indexes of wholesale prices, by group and subgroup of commodities¹—Continued

[1947-49=100]

Commodity group	1957									1958					Annual avg.	
	Aug. ²	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	1956	1955	
Machinery and motive products	146.2	*145.8	145.2	145.1	145.0	144.8	144.5	143.9	143.6	143.4	141.1	139.7	137.7	137.8	128.4	
Agricultural machinery and equipment	132.6	132.3	132.3	132.3	132.1	132.2	132.0	131.8	131.2	130.8	129.5	127.4	126.9	127.6	123.2	
Construction machinery and equipment	161.1	*157.9	157.6	157.6	157.5	156.7	156.3	156.2	155.9	155.5	154.7	151.5	149.4	148.6	137.1	
Metalworking machinery and equipment	166.9	*166.1	165.6	165.6	165.3	164.9	163.8	163.4	163.3	163.0	161.4	159.6	157.1	156.4	142.5	
General purpose machinery and equipment	158.8	*157.4	156.5	156.0	156.2	155.9	155.8	155.5	154.6	154.0	153.0	151.6	149.1	147.5	134.0	
Miscellaneous machinery	146.3	*144.5	143.9	143.8	143.7	143.3	143.0	142.5	142.2	142.0	140.4	138.9	137.2	137.0	129.2	
Electrical machinery and equipment	149.6	*149.5	148.2	148.2	147.8	147.5	147.1	146.0	145.4	145.2	143.2	142.0	138.0	138.4	128.2	
Motor vehicles	134.7	134.7	134.7	134.7	134.6	134.6	134.3	134.3	134.3	134.2	130.8	129.4	129.1	129.8	122.9	
Furniture and other household durables	122.9	*122.4	121.7	121.6	121.5	121.9	121.9	121.9	121.2	121.1	121.0	119.7	119.1	119.1	115.9	
Household furniture	122.9	*122.8	122.4	122.4	122.2	122.2	122.0	122.0	121.2	121.2	120.8	120.4	119.5	119.0	114.0	
Commercial furniture	153.6	153.6	147.3	147.3	147.3	146.9	146.9	146.9	146.9	146.9	146.8	146.8	145.9	141.8	132.0	
Floor covering	132.5	*132.5	133.8	133.8	133.8	134.3	134.3	135.1	131.9	131.9	131.8	131.9	131.6	131.1	126.4	
Household appliances	104.7	*104.9	105.2	105.1	105.4	106.8	106.8	106.5	105.9	106.5	106.5	105.5	105.5	105.0	106.8	
Television, radio receivers, and phonographs	96.7	*96.0	93.4	93.1	93.1	93.1	93.5	93.5	93.3	93.5	93.5	93.7	93.2	93.1	93.0	
Other household durable goods	148.0	147.9	147.9	147.7	147.0	147.0	147.0	146.8	146.7	145.0	145.0	140.2	139.7	140.9	133.5	
Nommetallic minerals—structural	135.3	135.2	135.1	135.0	134.6	133.2	132.7	132.0	131.3	131.2	131.5	131.1	130.8	129.6	124.2	
Flat glass	135.7	135.7	135.7	135.7	135.7	135.7	135.7	135.7	135.7	135.7	135.7	135.7	135.7	133.4	128.0	
Concrete ingredients	136.5	*136.4	135.8	135.7	135.7	135.1	134.8	134.6	131.7	131.6	131.6	130.7	130.7	130.6	124.8	
Concrete products	126.4	*126.4	126.7	126.7	126.6	125.7	125.6	125.6	125.3	125.3	125.0	124.8	123.4	123.0	118.6	
Structural clay products	155.0	155.1	155.1	155.0	155.0	150.8	150.7	150.6	150.6	150.6	150.1	150.1	150.1	148.0	140.1	
Gypsum products	127.1	127.1	127.1	127.1	127.1	127.1	127.1	127.1	127.1	127.1	127.1	127.1	127.1	127.1	122.1	
Prepared asphalt roofing	125.8	125.8	125.8	125.8	125.8	121.6	118.2	115.3	111.2	114.4	114.4	117.5	117.5	111.7	106.1	
Other nonmetallic minerals	128.3	*128.3	128.3	128.3	128.3	127.5	126.0	124.3	124.3	124.3	124.3	123.6	123.8	123.4	121.2	
Tobacco manufactures and bottled beverages	127.7	127.7	124.7	124.5	124.8	124.1	124.1	124.0	123.6	123.5	123.1	122.8	122.5	122.3	121.6	
Cigarettes	134.8	134.8	124.0	124.0	124.0	124.0	124.0	124.0	124.0	124.0	124.0	124.0	124.0	124.0	124.0	
Cigars	105.1	105.1	105.1	105.1	105.1	105.1	105.1	105.1	104.2	104.2	104.2	104.2	104.2	104.2	103.9	
Other tobacco manufactures	143.8	*143.8	134.9	127.7	126.9	126.0	126.0	126.0	126.0	125.5	122.5	122.5	122.5	122.8	121.8	
Alcoholic beverages	119.6	119.6	119.6	119.6	119.6	119.0	119.0	119.0	118.1	118.1	117.2	116.9	116.2	115.8	114.6	
Nonalcoholic beverages	149.3	149.3	149.3	149.3	149.0	148.7	148.7	148.7	148.7	148.7	148.7	148.4	148.4	148.3	148.1	
Miscellaneous products	90.1	88.8	87.3	89.4	91.4	92.0	92.4	93.2	91.7	91.2	89.2	89.9	91.1	91.0	92.0	
Toys, sporting goods, small arms, and ammunition	117.7	*117.5	117.5	117.5	117.5	117.5	117.5	117.5	116.9	116.8	116.7	116.6	116.3	116.1	113.8	
Manufactured animal feeds	68.2	66.0	63.4	67.2	71.0	72.0	72.8	74.4	72.6	71.9	68.2	69.6	72.1	72.0	75.7	
Notions and accessories	97.4	97.4	97.4	97.4	97.4	96.7	96.7	96.7	96.6	96.5	96.5	96.5	95.8	95.3	92.1	
Jewelry, watches, and photographic equipment	106.8	106.8	106.8	107.6	107.6	107.6	107.7	107.5	105.4	105.2	105.2	104.8	104.8	104.9	103.7	
Other miscellaneous products	129.4	128.8	127.2	126.8	126.8	126.5	126.3	126.1	125.4	125.1	124.7	124.8	124.7	124.1	121.6	

¹ See Note, table D-7.² Preliminary.

*Revised.

SOURCE: U. S. Department of Labor, Bureau of Labor Statistics.

TABLE D-9. Indexes of wholesale prices, by economic sectors

[1947-49=100]

Commodity group	1957												1956				
	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	1956	1955		
All commodities.....	118.3	*118.2	117.4	117.1	117.2	116.9	117.0	116.9	116.3	115.9	115.6	115.5	114.7	114.3	110.7		
Crude materials for further processing.....	99.6	99.7	98.8	96.5	97.1	96.7	96.7	97.4	96.6	94.9	95.0	96.7	96.4	95.0	94.5		
Crude foodstuffs and feedstuffs.....	90.3	*90.4	89.1	86.9	88.0	86.5	85.9	86.3	85.0	83.4	84.4	87.2	86.8	84.0	85.7		
Crude nonfood materials except fuel.....	115.0	115.2	115.0	112.0	111.6	113.4	114.2	115.8	115.9	114.3	112.6	113.1	113.1	114.2	110.1		
Crude nonfood materials, except fuel, for manufacturing.....	114.1	114.3	114.2	110.9	110.5	112.5	113.3	115.1	115.5	113.7	111.9	112.5	112.5	113.6	109.6		
Crude nonfood materials, except fuel, for construction.....	136.5	*136.4	135.8	135.7	135.6	135.1	134.8	134.6	131.7	131.6	131.6	130.7	130.7	130.6	124.9		
Crude fuel.....	118.2	*118.0	119.1	119.3	120.0	119.9	121.7	120.8	120.4	116.5	116.0	115.5	110.9	113.3	105.8		
Crude fuel for manufacturing.....	118.1	*117.9	117.9	119.2	119.8	119.6	121.3	120.4	120.0	116.3	115.8	111.3	110.7	113.0	105.4		
Crude fuel for nonmanufacturing industry.....	118.5	*118.3	118.3	119.6	120.2	120.5	122.3	121.4	121.0	116.8	116.2	111.8	111.1	113.7	106.5		
Intermediate materials, supplies, and components.....	125.4	*125.2	124.5	124.7	125.0	124.9	125.1	124.8	124.2	123.8	123.6	123.0	122.6	122.1	117.0		
Intermediate materials and components for manufacturing.....	127.3	127.1	126.2	126.2	126.3	126.3	126.5	126.4	125.9	125.7	125.6	124.8	124.2	123.7	118.2		
Intermediate materials for food manufacturing.....	99.2	100.1	99.2	98.5	99.0	99.6	100.4	101.1	100.1	99.8	98.3	97.0	96.7	98.0	97.7		
Intermediate materials for nondurable manufacturing.....	106.0	105.8	105.9	105.6	105.4	105.2	105.5	105.4	105.0	104.8	104.7	104.0	104.0	104.3	102.7		
Intermediate materials for durable manufacturing.....	154.3	*153.8	151.6	152.0	152.5	152.5	152.1	151.1	151.1	151.1	151.1	151.7	150.6	148.5	139.7		
Components for manufacturing.....	148.8	*148.3	147.7	148.0	147.9	147.6	147.4	147.5	147.9	147.9	146.7	145.2	143.3	142.9	130.9		
Materials and components for construction.....	133.4	133.3	132.6	132.6	132.8	132.7	132.8	132.8	133.0	133.1	133.4	133.2	132.8	132.0	125.6		
Processed fuels and lubricants.....	112.1	*112.7	113.3	114.3	115.2	114.7	114.7	112.2	109.9	106.4	107.1	107.3	107.1	106.7	103.5		
Processed fuels and lubricants for manufacturing.....	110.5	*110.9	111.3	112.3	113.2	112.6	112.7	110.4	108.5	105.4	105.9	106.0	105.7	105.3	102.2		
Containers, nonreturnable.....	115.0	*115.7	116.8	117.9	118.6	118.3	118.2	115.2	112.3	108.3	109.2	109.5	109.5	109.1	105.7		
Supplies.....	134.8	*134.5	134.1	134.1	132.8	132.9	132.7	133.0	132.6	132.3	131.1	129.3	126.5	128.2	119.8		
Supplies for manufacturing.....	112.5	*111.7	110.9	112.0	113.1	113.3	113.4	113.8	113.0	112.7	111.3	111.0	111.3	111.3	108.5		
Supplies for nonmanufacturing industry.....	136.9	*137.0	136.7	136.7	136.8	136.1	135.9	135.4	135.3	135.3	135.1	133.6	132.7	132.9	127.3		
Manufactured animal feeds.....	101.5	*100.2	99.1	100.8	102.4	103.0	103.3	104.0	102.9	102.5	100.5	100.7	101.7	101.6	100.0		
Other supplies.....	67.9	65.6	63.6	67.8	71.7	73.1	73.7	75.7	75.7	72.6	68.3	69.5	72.4	72.9	78.7		
Finished goods (goods to users, including raw foods and fuels).....	118.6	*118.5	117.6	117.4	117.7	116.9	117.0	116.7	116.2	115.6	115.3	114.1	114.0	110.9			
Consumer finished goods.....	111.6	*111.6	110.7	110.5	110.5	109.9	110.2	109.9	109.3	109.4	109.1	109.1	108.1	108.0	106.4		
Consumer foods.....	106.2	*106.2	104.2	103.1	102.7	101.8	101.8	102.3	101.8	102.7	103.0	103.7	101.7	101.0	101.1		
Consumer crude foods.....	96.1	*94.9	88.1	88.4	91.1	86.3	88.7	91.0	94.6	97.2	96.5	96.7	91.5	96.2	96.4		
Consumer processed foods.....	108.2	*108.4	107.2	105.9	105.0	104.1	104.3	104.4	103.3	103.9	104.3	105.2	103.4	102.1	102.2		
Consumer other nondurable goods.....	112.2	112.2	112.0	112.5	112.8	112.7	112.9	111.8	111.0	110.3	110.3	110.0	109.8	109.9	107.8		
Consumer durable goods.....	123.0	*122.9	122.7	122.7	122.7	122.9	122.9	123.0	122.9	122.4	122.3	120.7	119.8	119.5	117.9		
Producer finished goods.....	147.1	*146.4	145.5	145.5	145.3	145.1	144.7	144.3	144.0	143.8	141.9	140.6	138.4	138.1	128.5		
Producer goods for manufacturing industries.....	151.8	*151.1	150.1	150.1	150.0	149.2	148.7	148.5	148.2	146.2	145.2	143.3	142.2	130.9			
Producer goods for nonmanufacturing industries.....	143.2	*142.6	141.6	141.6	141.4	141.2	140.9	140.5	140.2	140.0	138.3	136.7	134.9	134.9	126.6		

¹Preliminary.²Revised.

NOTE: For a description of these series, see New BLS Economic Sector Indexes of Wholesale Prices, Monthly Labor Review, December 1955 (p. 1448).

SOURCE: U. S. Department of Labor, Bureau of Labor Statistics.

TABLE D-10. Indexes of wholesale prices for special commodity groupings

[1947-49=100]

Commodity group	1957												1956				
	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	1956	1955		
All foods.....	105.3	*105.7	103.7	102.8	102.4	101.9	101.5	102.1	101.6	102.4	102.3	102.8	100.7	108.1	101.0		
All fish.....	116.4	*119.9	117.2	117.0	119.4	119.4	115.3	121.8	116.1	118.4	112.5	114.3	114.6	114.1	105.4		
Special metals and metal products.....	148.0	*147.5	146.2	145.8	145.9	146.5	146.8	147.3	147.1	146.3	145.7	144.4	144.4	143.3	132.9		
Metalworking machinery.....	177.6	*176.0	175.0	174.9	174.5	174.1	173.6	173.0	172.4	172.2	170.0	167.1	165.0	146.8			
Machinery and equipment.....	152.4	*151.7	150.9	150.7	150.6	150.2	149.8	149.1	148.6	148.3	146.7	145.2	142.3	142.1	131.4		
Agricultural machinery (including tractors).....	132.8	132.4	132.5	132.5	132.3	132.3	132.2	131.6	131.1	130.7	129.2	127.2	127.1	126.6	122.9		
Total tractors.....	141.8	139.3	138.3	139.3	139.0	139.0	137.0	138.0	137.2	137.2	136.5	134.3	132.3	132.5	124.7		
Steel-mill products.....	183.0	*182.9	175.6	175.7	175.3	174.3	174.5	172.1	169.9	169.9	169.8	169.8	169.8	169.8	150.7		
Building materials.....	131.3	131.4	130.7	130.7	130.7	130.5	130.5	130.5	130.5	130.8	131.0	131.0	131.5	130.6	125.5		
Soaps.....	103.8	*103.8	103.6	103.6	103.4	102.9	100.9	100.9	100.4	100.2	100.2	100.2	100.2	99.7	97.8		
Synthetic detergents.....	98.2	*98.2	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	91.7		
Refined petroleum products.....	124.0	125.0	127.3	129.0	129.7	130.0	130.3	124.6	120.6	116.8	117.6	117.7	117.7	117.5	111.2		
East Coast petroleum.....	118.6	121.2	123.7	125.0	128.8	128.8	128.8	128.8	128.6	127.5	114.3	116.8	116.8	116.0	114.6	107.6	
Mid-continent petroleum.....	121.2	121.7	126.2	128.4	128.4	129.4	130.2	121.9	119.7	118.3	118.3	119.9	119.9	118.3	109.4		
Gulf Coast petroleum.....	126.7	127.9	125.2	131.0	133.6	133.6	133.6	130.1	121.2	117.2	119.1	118.0	117.5	118.8	117.1		
Pacific Coast petroleum.....	135.9	135.9	135.2	135.2	132.0	132.0	132.0	130.7	127.0	116.2	114.6	114.6	115.7	117.4	109.6		
Pulp, paper and products, excl. bldg. paper.....	129.6	*129.2	126.6	128.6	128.3	128.5	128.2	128.3	127.7	127.6	127.8	127.6	127.7	127.0	119.1		
Bituminous coal, domestic sizes.....	121.2	119.1	117.2	116.1	116.5	121.4	124.1	124.1	123.9	122.7	122.9	116.4	114.4	115.4	110.2		
Lumber and wood products, excl. millwork.....	117.3	118.7	118.4	118.5	119.0	118.9	119.6	120.3	120.0	120.5	121.1	122.0	122.9	124.6	122.9		
All commodities except farm products.....	122.6	*122.4	121.8	121.7	121.7	121.6	121.7	121.6	120.9	120.6	120.1	119.7	119.0	118.6	114.3		

¹Preliminary.²Revised.

NOTE: For a description of these series, see Techniques of Preparing Major BLS Statistical Series, BLS Bull. 1168 (1954).

SOURCE: U. S. Department of Labor, Bureau of Labor Statistics.

E.—Work Stoppages

TABLE E-1. Work stoppages resulting from labor-management disputes¹

Month and year	Number of stoppages		Workers involved in stoppages		Man-days idle during month or year	
	Beginning in month or year	In effect during month	Beginning in month or year	In effect during month	Number	Percent of estimated working time
1935-39 (average)...	2,862		1,130,000		16,000,000	0.27
1947-49 (average)...	3,573		2,380,000		30,700,000	.46
1945...	4,750		3,470,000		38,000,000	.47
1946...	4,985		4,600,000		116,000,000	1.43
1947...	3,693		2,170,000		34,600,000	.41
1948...	3,419		1,960,000		34,100,000	.37
1949...	3,606		3,050,000		50,500,000	.59
1950...	4,843		2,410,000		38,800,000	.44
1951...	4,737		2,220,000		22,900,000	.23
1952...	5,117		3,540,000		59,100,000	.57
1953...	5,091		2,400,000		28,300,000	.26
1954...	3,468		1,530,000		22,600,000	.21
1955...	4,320		2,650,000		28,200,000	.25
1956...	3,825		1,900,000		33,100,000	.29
1956: August...	398	625	137,000	690,000	2,960,000	.29
September...	336	541	156,000	209,000	1,630,000	.19
October...	332	524	133,000	178,000	1,180,000	.11
November...	242	403	158,000	204,000	1,460,000	.15
December...	114	240	29,000	53,000	472,000	.05
1957: January ² ...	225	325	60,000	50,000	550,000	.06
February ² ...	225	350	60,000	130,000	825,000	.09
March ² ...	250	375	80,000	120,000	775,000	.08
April ² ...	400	525	150,000	190,000	1,380,000	.14
May ² ...	475	650	190,000	250,000	1,850,000	.18
June ² ...	400	600	140,000	220,000	1,850,000	.20
July ² ...	400	625	160,000	260,000	2,500,000	.25
August ² ...	350	575	140,000	220,000	1,600,000	.16

¹ The data include all known work stoppages involving six or more workers and lasting a full day or shift or longer. Figures on workers involved and man-days idle cover all workers made idle for as long as one shift in establishments directly involved in a stoppage. They do not measure the indirect or secondary effects on other establishments or industries whose employees are made idle as a result of material or service shortages.

² Preliminary.

NOTE: For a description of this series, see Techniques of Preparing Major BLS Statistical Series, BLS Bull. 1168 (1954).

SOURCE: U. S. Department of Labor, Bureau of Labor Statistics.

F.—Building and Construction

TABLE F-1. Expenditures for new construction¹

[Value of work put in place]

Type of construction	Expenditures (in millions of dollars)															
	1957							1956				1955	1955			
	Sept. ²	Aug. ³	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Total	Total	
Total new construction ⁴	4,618	4,595	4,395	4,347	4,033	3,641	3,280	3,000	3,182	3,544	3,964	4,302	4,425	46,000	44,581	
Private construction																
Residential buildings (nonfarm)	3,110	3,117	3,039	3,004	2,808	2,579	2,392	2,217	2,311	2,654	2,922	3,003	3,073	33,242	32,620	
New dwelling units	1,573	1,569	1,556	1,526	1,410	1,300	1,167	1,048	1,137	1,362	1,521	1,580	1,640	17,632	18,705	
Additions and alterations ⁵	1,140	1,135	1,125	1,085	1,000	940	875	795	885	1,045	1,140	1,195	1,240	13,490	14,960	
Nonhousekeeping	386	390	391	401	373	326	258	217	214	277	339	344	360	3,695	3,376	
Nonresidential buildings ⁶	802	805	774	786	747	713	709	704	722	772	804	797	787	8,817	7,611	
Industrial	260	266	262	270	270	271	269	270	269	274	276	278	278	3,084	2,399	
Commercial	322	319	307	309	287	263	264	257	269	305	329	320	313	3,631	3,218	
Office buildings and warehouses	168	167	152	153	146	135	133	135	143	157	165	160	152	1,684	1,311	
Stores, restaurants, and garages	154	152	155	156	141	128	131	122	126	148	164	160	161	1,947	1,907	
Other nonresidential buildings	220	220	205	207	190	179	176	177	184	193	199	199	196	2,102	1,994	
Religious	81	80	75	73	68	64	63	65	67	71	74	75	73	768	734	
Educational	47	47	42	43	40	39	40	41	43	46	47	49	49	536	492	
Hospital and institutional ⁷	48	47	41	43	40	38	36	34	33	32	32	31	30	328	351	
Social and recreational	28	29	27	26	24	23	23	23	24	26	27	27	27	275	239	
Miscellaneous	16	17	20	22	18	15	14	14	17	18	19	17	17	195	178	
Farm construction	159	171	166	156	140	119	105	96	91	97	111	130	156	1,560	1,600	
Public utilities	568	553	526	517	493	432	398	357	350	413	475	484	478	5,113	4,543	
Railroad	41	41	41	40	38	37	35	31	32	36	43	41	40	427	374	
Telephones and telegraph	89	91	91	95	101	88	94	86	85	75	88	107	104	87	1,066	935
Other public utilities	428	421	394	354	307	269	240	243	289	325	343	321	321	3,620	3,364	
All other private	18	19	17	19	18	15	13	12	11	10	11	12	12	120	161	
Public construction	1,508	1,478	1,356	1,343	1,225	1,062	888	783	871	890	1,042	1,299	1,352	12,818	11,961	
Residential buildings ⁸	51	49	40	39	37	34	30	30	29	31	30	25	25	292	266	
Nonresidential buildings (other than military facilities)	415	414	394	405	389	374	345	305	336	324	344	371	381	4,072	4,218	
Industrial	37	38	41	43	43	41	41	37	44	45	45	42	41	453	721	
Educational	261	260	249	254	228	223	215	194	211	201	210	226	221	2,549	2,442	
Hospital and institutional	29	30	29	32	33	31	27	23	24	23	26	30	30	298	322	
Administrative and service	44	42	37	38	38	36	32	27	30	33	38	39	362	331		
Other nonresidential buildings	44	44	38	38	37	33	30	24	27	26	30	35	40	410	402	
Military facilities ⁹	140	135	117	110	100	98	84	82	93	98	117	141	146	1,365	1,313	
Highways	615	595	545	535	455	335	230	195	225	239	326	512	543	4,470	4,050	
Sewer and water systems	128	130	120	120	117	113	104	104	100	100	110	120	121	1,275	1,085	
Water	76	76	68	66	64	63	58	53	56	60	65	65	701	615		
Sewer	52	54	52	54	53	50	46	40	44	44	50	55	56	574	470	
Public service enterprises	45	44	38	38	35	30	26	21	24	27	32	35	39	384	233	
Conservation and development	103	100	90	83	79	70	60	51	57	65	73	79	84	826	701	
All other public	11	11	12	13	13	11	9	6	7	7	9	11	13	104	95	

¹ Estimated monetary value of new construction put in place during the periods shown, including major additions and alterations but excluding maintenance and repair. These figures differ from permit valuation data reported in the tabulations for building permit activity (tables F-3, F-4, and F-5) and the data on value of contract awards (table F-2).

² Preliminary.

³ Includes revisions in the series on residential additions and alterations, and data are not comparable with those published in issues preceding June 1957. See Technical Note on Revised Estimates of Residential Additions and Alterations, 1945-56, on page 973 of the August 1957 issue.

⁴ Expenditures by privately owned public utilities for nonresidential buildings are included under "Public utilities."

⁵ Includes Federal contributions toward construction of private nonprofit hospital facilities under the National Hospital Program.

⁶ Includes nonhousekeeping public residential construction as well as housekeeping units.

⁷ Covers all building and nonbuilding construction, except production facilities (which are included in public industrial building), and Armed Forces housing under the Capehart program (which is included in public residential building).

⁸ Revised.

⁹ NOTE: For a description of these series, see Techniques of Preparing Major BLS Statistical Series, BLS Bull. 1168 (1954).

SOURCE: Joint estimates of the U. S. Department of Labor, Bureau of Labor Statistics and U. S. Department of Commerce, Business and Defense Services Administration.

TABLE F-2. Contract awards: Public construction, by ownership and type of construction¹

Ownership and type of construction	Value (in millions of dollars)															
	1957							1958							1956	1955
	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	Total	Total	
Total public construction.....	1,117.3	1,203.3	1,103.9	970.9	1,107.2	768.1	923.3	823.9	769.4	837.9	769.5	836.3	1,100.1	10,372.2	9,000.5	
Federally owned.....	129.6	363.3	203.1	309.0	345.2	217.3	210.2	176.4	119.0	151.9	134.1	111.6	184.9	2,037.4	1,556.0	
Residential buildings.....	60.3	29.0	64.5	21.5	115.4	19.3	30.2	19.9	1.2	8.9	19.6	1.0	5.8	185.1	61.4	
Nonresidential buildings.....	16.3	195.5	57.2	58.2	71.7	67.3	87.1	50.8	87.5	97.6	37.4	63.9	46.3	906.4	885.5	
Educational.....	2.1	7.2	1.0	8.7	4.0	1.5	20.5	1.4	.9	6.7	.3	.7	2.3	23.7	21.6	
Hospital and institutional.....	3	29.1	1.4	.4	4.6	2.0	16.1	1	.5	6.8	.5	1.7	5.4	45.9	77.5	
Administrative and service.....	9.3	61.6	10.8	7.5	3.5	1.5	4.5	3.8	3.0	5.1	4.1	3.5	6.3	15.3	66.7	
Other nonresidential buildings.....	4.6	90.6	44.4	41.6	59.6	62.3	46.0	44.5	52.9	79.0	82.6	58.0	34.3	754.5	719.7	
Airfield buildings.....	8	20.3	5.1	7.4	11.6	9.3	5.6	3.0	6.4	1.8	5.6	3.9	4.1	72.1	103.8	
Troop housing.....	2	8.2	7.7	9.8	7.7	16.4	5.6	11.7	7	20.3	7.2	1.8	6.1	122.7	54.1	
Warehouses.....	9	11.3	5.9	2.7	4.0	3.1	3.6	1.2	2.0	2.8	1.6	4.5	63.2	84.0		
All other.....	2.7	57.3	25.3	21.7	36.3	30.8	31.3	26.2	40.6	54.9	15.9	50.7	19.6	496.5	477.8	
Airfields.....	(2)	26.4	24.7	34.7	49.7	27.0	7.9	28.0	21.6	4.7	5.2	7.5	6.1	155.7	157.4	
Conservation and development.....	41.6	66.6	30.0	143.0	83.1	49.7	52.8	62.6	26.5	27.9	55.7	22.6	54.8	511.0	271.9	
Highways.....	8.6	11.6	6.8	15.8	4.1	3.4	9.3	7.1	8.8	9.3	10.0	5.8	8.6	91.9	58.5	
Electric power.....	1.1	6.0	5.7	23.3	2.9	25.6	7.9	3.9	2.1	1.6	1.6	2.9	58.3	177.5	43.5	
All other federally owned.....	1.7	28.2	14.2	12.5	18.3	25.0	15.0	4.1	1.5	1.9	4.6	7.9	4.0	63.8	77.8	
State and locally owned.....	987.7	930.0	900.8	661.9	762.0	550.8	713.1	647.5	650.4	866.0	635.4	724.7	915.2	8,334.8	7,444.5	
Residential buildings.....	38.8	27.5	21.7	14.7	7.4	31.4	21.8	13.8	17.6	23.0	31.7	12.3	21.4	232.2	210.1	
Nonresidential buildings.....	267.0	337.8	345.2	256.2	300.8	256.1	252.8	272.2	253.5	252.8	259.0	286.6	294.3	3,202.8	2,842.0	
Educational.....	183.0	231.9	237.6	191.6	234.9	175.9	184.9	211.5	189.3	175.0	173.7	192.9	199.2	2,289.0	2,107.2	
Hospital and institutional.....	22.2	35.8	43.6	17.4	15.8	27.4	12.6	13.9	15.3	28.2	43.4	15.5	24.1	278.9	185.9	
Administrative and service.....	28.7	34.2	23.3	20.1	23.0	29.2	23.3	22.9	21.0	27.7	16.1	54.2	26.1	320.8	263.0	
Other nonresidential buildings.....	33.1	35.9	40.7	27.1	25.1	23.6	32.0	23.9	27.9	21.9	26.6	24.0	34.9	314.1	285.9	
Highways.....	540.8	414.7	306.7	288.5	349.6	186.2	317.1	240.5	278.1	269.1	223.6	271.9	349.3	3,211.6	2,933.5	
Sewer and water systems.....	80.7	103.7	172.6	67.7	75.4	55.4	68.9	80.8	65.2	93.7	84.6	103.8	125.5	1,100.0	895.5	
Sewer.....	55.5	74.4	94.4	44.1	45.6	16.6	37.3	49.1	36.2	50.3	54.7	74.9	49.3	658.9	501.9	
Water.....	25.2	29.3	78.2	23.6	31.8	38.8	31.6	31.7	29.0	43.4	29.9	28.9	76.2	441.1	393.6	
Public service enterprises.....	38.7	33.3	27.3	18.8	17.4	11.7	33.1	31.2	25.2	26.0	17.6	26.0	111.6	336.5	378.0	
Electric power.....	14.7	23.7	9.0	9.0	7.7	8.2	17.1	11.2	17.9	17.8	9.0	15.1	103.6	227.2	247.4	
Other.....	24.0	9.6	18.3	9.8	9.7	3.5	16.0	20.0	7.3	8.2	8.6	10.9	8.0	109.3	130.6	
Conservation and development.....	12.3	4.8	20.3	8.6	4.5	5.1	12.0	4.1	5.8	12.9	12.1	14.5	11.9	139.3	117.2	
All other State and locally owned.....	9.4	8.2	7.0	6.4	6.9	4.9	7.4	4.9	5.0	8.5	6.0	9.6	11.2	91.4	68.2	

¹ Includes major force account projects started (construction done directly by a government agency using a separate work force to perform nonmaintenance construction on the agency's own property).

² Less than \$50,000.

SOURCE: U. S. Department of Labor, Bureau of Labor Statistics and U. S. Department of Commerce, Business and Defense Services Administration.

TABLE F-3. Building permit activity: Valuation, by private-public ownership, class of construction, and type of building¹

Class of construction, ownership, and type of building	Valuation (in millions of dollars)														
	1957						1956						1955		
	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	Total	Total
All building construction.....	1,728.3	1,821.9	1,710.6	1,531.0	1,215.3	1,110.0	1,053.0	1,340.4	1,652.8	1,440.6	1,732.7	1,716.7	1,842.8	18,760.7	18,939.0
Private.....	1,484.0	1,640.7	1,529.3	1,370.3	1,053.3	976.2	925.5	1,192.8	1,483.0	1,308.9	1,591.3	1,559.3	1,596.2	16,884.7	17,264.3
Public.....	244.3	181.3	181.3	160.7	162.0	138.8	127.4	147.6	169.8	131.7	141.4	157.5	246.7	1,876.0	1,674.7
New residential building.....	891.3	948.7	908.7	817.0	595.9	542.7	528.7	682.6	878.5	772.7	960.8	896.6	973.0	10,250.6	11,696.1
Dwelling units (housekeeping only).....	879.6	930.9	895.4	800.7	584.6	535.2	519.9	674.7	863.5	761.4	946.9	887.1	963.6	10,138.5	11,535.1
Privately owned.....	820.9	914.0	883.1	799.0	571.1	528.0	514.0	667.8	836.6	746.9	942.4	881.0	937.5	9,962.1	11,386.4
1-family.....	734.0	817.2	794.1	710.3	504.2	465.4	454.0	609.3	774.9	688.4	869.6	824.3	879.2	9,211.3	10,643.1
2-family.....	20.0	26.4	21.4	20.1	17.1	12.7	11.8	18.7	17.8	16.4	18.6	18.4	17.9	214.8	208.4
3- and 4-family.....	9.9	11.9	11.3	10.4	7.5	8.0	5.4	7.2	9.8	7.6	7.7	6.9	6.5	87.9	84.0
5-or-more family.....	57.0	64.6	56.2	58.2	42.3	41.9	42.8	35.5	34.1	34.4	46.4	31.4	33.8	448.1	451.0
Publicly owned.....	58.7	16.9	12.3	1.7	13.6	7.2	5.9	6.9	26.9	14.6	4.8	6.1	26.1	176.4	148.7
Nonhousekeeping buildings.....	11.8	17.8	13.3	16.4	11.3	7.8	8.9	7.9	14.9	11.3	22.9	9.5	9.4	142.2	161.1
New nonresidential buildings.....	648.2	675.1	621.8	566.1	490.5	448.6	414.4	526.4	607.6	525.3	581.0	636.7	696.8	6,649.7	5,593.7
Commercial buildings.....	178.0	218.5	191.6	162.2	116.2	135.7	153.0	177.1	163.4	187.6	219.8	216.7	2,078.0	1,858.7	
Amusement buildings.....	13.6	13.1	15.5	10.1	5.9	7.2	5.7	10.6	8.9	10.2	7.5	12.7	10.7	113.4	99.4
Commercial garages.....	6.9	6.0	7.3	3.6	3.7	4.2	4.0	4.7	5.8	3.6	5.1	7.0	6.8	60.0	66.7
Gasoline and service stations.....	13.8	15.5	15.0	14.0	12.2	12.5	10.3	13.9	17.2	15.4	15.5	13.6	15.2	165.5	140.0
Office buildings.....	58.8	94.4	67.4	52.8	51.9	38.0	57.6	66.1	44.0	57.5	67.1	78.4	97.2	734.4	553.4
Stores and other mercantile buildings.....	84.9	89.6	86.4	81.8	58.8	54.2	58.2	67.8	101.2	76.7	92.4	81.1	86.9	1,004.7	999.1
Community buildings.....	222.1	240.9	214.9	214.7	149.7	161.1	145.2	175.6	208.5	180.9	190.5	208.9	215.9	2,225.7	1,946.2
Educational buildings.....	121.2	155.6	136.6	138.0	97.9	110.9	99.6	120.6	125.0	106.6	102.6	110.7	149.6	1,407.1	1,242.3
Institutional buildings.....	53.7	36.2	31.5	36.2	22.2	20.3	18.3	24.4	41.5	32.2	47.6	52.6	26.8	367.8	307.7
Religious buildings.....	47.2	49.1	46.8	50.5	29.7	27.0	20.3	30.6	42.0	42.4	40.6	45.6	39.4	450.8	396.2
Garages, private residential.....	22.2	22.1	18.6	14.4	5.7	4.4	13.8	23.4	22.4	22.9	21.8	21.8	21.8	210.9	187.6
Industrial buildings.....	101.2	95.2	102.8	96.5	82.3	87.3	59.8	105.5	122.0	97.7	105.2	125.2	120.8	1,260.0	800.4
Public buildings.....	54.9	58.8	33.5	52.6	53.0	26.9	23.1	21.1	26.7	21.4	24.4	30.6	57.2	326.9	308.4
Public utilities buildings.....	37.2	45.8	37.4	21.9	31.3	35.0	28.4	27.5	29.9	23.2	32.4	37.1	34.2	326.7	273.1
All other nonresidential buildings.....	22.1	23.7	22.0	19.4	14.3	11.9	15.9	21.8	19.1	16.3	16.9	20.3	21.4	229.9	191.0
Additions, alterations, and repairs.....	188.7	198.2	180.1	157.9	128.9	118.7	109.8	131.4	166.7	142.6	181.9	183.4	172.9	1,830.4	1,649.1

¹ Data relate to building construction authorized by local building permits in all localities (over 7,000) having building-permit systems—rural and nonfarm as well as urban. Figures on the amount of construction contracts awarded for Federal projects and for public housing (Federal, State, and local) in permit-issuing places are added to the valuation data (estimated cost entered by builders on building-permit applications) for privately owned projects; construction undertaken by State and local governments is reported by local officials. Because permit valuations generally understate the actual cost of construction and because of lapsed permits and the lag between permit issuance or contract-awarded dates and start of construction, these data do not represent the volume of building construction started.

Because of rounding, sums of individual items do not necessarily equal totals.

NOTE: July 1957 data not available for this issue because of tabulating delays resulting from changes in the reporting schedule.

SOURCE: U. S. Department of Labor, Bureau of Labor Statistics.

TABLE F-4. Building permit activity: Valuation, by class of construction and geographic region¹

Class of construction and geographic region	Valuation (in millions of dollars)														
	1957						1956						1955		
	July	June*	May*	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July*	Total	Total
All building construction.....	1,681.3	1,748.7	1,829.7	1,710.6	1,531.0	1,215.3	1,110.0	1,053.0	1,340.4	1,652.8	1,440.6	1,732.7	1,724.2	18,760.7	18,939.0
Northeast.....	343.5	338.4	439.2	353.0	336.4	235.9	196.4	243.9	291.2	346.8	337.6	363.5	347.7	4,047.8	4,129.8
North Central.....	515.4	558.2	542.1	536.5	446.5	320.6	242.0	258.0	387.0	587.3	446.6	548.2	556.1	5,670.7	5,715.4
South.....	439.6	465.6	425.7	404.6	354.9	357.9	339.7	272.0	317.0	386.3	335.0	368.2	395.1	4,462.6	4,667.7
West.....	382.9	386.2	422.7	416.5	300.8	331.9	279.1	345.2	382.4	321.4	422.8	425.3	4,579.7	4,426.2	
New dwelling units (housekeeping only).....	823.8	881.9	935.9	895.4	800.7	584.6	535.2	519.9	674.7	863.5	761.4	946.9	892.1	10,138.5	11,535.1
Northeast.....	162.3	183.7	195.5	190.5	153.1	96.7	86.9	118.0	151.2	192.6	168.5	194.5	192.1	2,196.6	2,500.1
North Central.....	256.9	277.6	283.0	266.7	240.0	146.1	106.7	193.9	267.2	255.5	306.4	291.6	3,137.0	3,488.5	
South.....	223.4	220.3	232.2	210.6	185.5	175.2	172.5	152.6	149.9	202.5	171.5	214.8	200.4	2,347.1	2,700.9
West.....	181.3	200.3	223.2	227.7	217.1	166.1	169.1	142.1	179.7	201.2	166.0	231.2	208.0	2,457.9	2,545.7
New nonresidential buildings.....	653.8	663.4	676.8	621.8	550.1	424.5	448.6	414.4	526.4	607.6	525.3	581.0	638.8	6,649.7	6,593.7
Northeast.....	139.5	112.3	189.2	124.1	141.0	114.1	83.3	99.2	111.4	115.9	133.8	124.1	114.9	1,431.6	1,233.8
North Central.....	202.0	230.6	202.1	216.5	164.8	140.0	110.0	99.0	157.5	213.2	146.8	186.9	209.8	1,991.4	1,748.7
South.....	155.8	183.1	136.1	130.5	118.5	137.0	131.0	108.4	130.1	138.6	125.8	128.1	140.7	1,591.5	1,455.4
West.....	156.4	137.4	149.4	141.7	132.3	99.2	124.8	101.8	127.5	140.0	119.6	141.8	173.5	1,635.2	1,155.9
Additions, alterations, and repairs.....	188.6	191.6	198.9	180.1	157.9	128.9	118.7	109.8	131.4	166.1	142.5	181.9	187.7	1,830.4	1,649.1
Northeast.....	39.6	40.5	51.6	36.8	34.9	24.0	24.1	27.1	34.1	33.8	42.7	39.6	39.6	394.1	364.9
North Central.....	54.2	48.0	55.0	51.1	32.6	32.8	24.8	30.4	34.0	53.2	40.6	52.3	52.0	510.2	449.2
South.....	52.2	51.4	48.6	50.1	43.2	38.8	35.3	29.4	34.8	41.6	36.0	45.8	39.2	481.9	451.1
West.....	42.6	45.9	45.7	42.2	40.2	32.4	34.8	26.2	35.2	37.8	32.5	41.1	42.0	444.2	388.9

¹ See footnote 1, table F-3.

² Includes new nonhousekeeping residential building, not shown separately.

*Revised.

SOURCE: U. S. Department of Labor, Bureau of Labor Statistics.

TABLE F-5. Building permit activity: Valuation, by metropolitan-nonmetropolitan location and State¹

State and location	Valuation (in millions of dollars)															
	1957							1956							1956	1955
	June	May*	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July*	June	Total	Total	
All States	1,748.7	1,829.7	1,710.6	1,531.0	1,215.3	1,110.0	1,053.0	1,340.4	1,652.8	1,440.6	1,732.7	1,724.2	1,842.8	18,760.7	18,939.0	
Metropolitan areas ²	1,350.6	1,423.9	1,321.3	1,200.6	961.1	863.7	841.6	1,032.0	1,294.1	1,101.4	1,350.2	1,338.1	1,454.5	14,667.4	15,108.9	
Nonmetropolitan areas	398.1	405.8	389.3	330.4	254.2	246.3	211.4	308.4	358.7	330.2	382.5	386.1	388.3	4,093.3	3,830.1	
Alabama	15.4	19.9	20.0	14.1	15.2	14.3	11.0	14.7	14.3	14.1	14.2	15.8	14.6	173.1	166.5	
Arizona	20.3	18.4	22.8	18.1	13.6	26.8	11.4	16.3	19.7	12.4	18.0	16.7	18.4	189.7	165.8	
Arkansas	4.7	6.2	6.2	6.4	9.0	5.0	3.4	3.7	4.5	5.3	5.3	4.3	5.0	57.4	54.3	
California	263.8	301.4	299.9	278.9	212.3	229.4	203.5	242.0	255.6	205.7	291.6	314.4	281.9	3,163.2	3,065.1	
Colorado	24.0	21.0	19.5	21.9	21.8	19.7	20.2	23.0	41.2	16.8	23.7	17.6	28.8	279.2	290.6	
Connecticut	33.2	41.2	35.8	42.0	22.3	21.1	22.6	37.1	33.0	29.8	34.6	30.9	41.1	375.1	359.1	
Delaware	9.3	4.9	5.2	3.2	5.4	6.1	3.4	6.5	7.8	3.2	6.2	3.8	8.3	66.0	62.0	
District of Columbia	14.4	6.3	8.4	3.9	2.8	5.3	2.4	4.4	17.9	8.9	3.6	6.1	4.5	70.2	87.7	
Florida	86.6	88.3	79.4	76.0	72.2	70.3	57.8	65.7	77.5	61.7	79.3	72.9	74.9	834.8	746.9	
Georgia	16.7	19.3	27.5	20.6	22.1	20.2	12.8	17.4	19.2	20.2	23.7	24.2	23.2	250.2	276.7	
Idaho	3.6	3.9	4.5	3.5	1.3	2.0	1.3	3.3	3.3	4.3	3.7	3.1	3.6	39.6	36.5	
Illinois	120.1	115.9	142.0	111.7	93.2	61.5	75.2	92.6	118.8	106.9	117.3	119.6	125.0	1,333.8	1,261.6	
Indiana	42.2	34.9	33.0	51.3	20.7	23.2	20.5	30.7	40.1	34.1	51.2	38.4	41.0	432.0	381.0	
Iowa	18.5	16.4	17.3	11.2	6.0	4.3	7.6	13.0	21.6	16.7	15.6	14.9	18.9	181.9	180.1	
Kansas	10.6	12.3	9.9	10.8	10.0	5.8	8.7	14.2	13.3	11.4	10.3	13.0	10.9	151.9	195.4	
Kentucky	18.8	22.4	16.1	16.8	13.6	6.5	10.1	10.6	11.2	13.9	15.6	23.1	14.1	168.2	189.3	
Louisiana	27.2	24.6	17.9	17.4	20.4	19.3	18.6	14.9	21.7	19.7	24.2	21.5	20.5	273.1	292.6	
Maine	3.4	4.9	3.7	2.5	1.0	.6	.8	2.7	2.7	3.9	2.8	4.0	4.5	33.9	29.8	
Maryland	53.2	44.6	36.0	30.8	37.9	27.3	28.5	28.0	36.4	26.5	49.1	33.8	40.2	429.8	494.4	
Massachusetts	45.5	42.3	39.0	51.2	28.4	18.5	25.9	39.5	42.5	47.2	40.0	46.4	39.2	470.0	445.1	
Michigan	107.8	97.6	99.4	74.2	48.2	45.2	38.9	72.8	114.2	81.4	112.6	113.9	98.2	1,084.6	1,130.4	
Minnesota	47.4	53.7	43.1	20.1	18.3	10.4	15.0	22.5	30.8	40.2	38.1	36.2	41.0	376.2	403.3	
Mississippi	7.8	3.2	6.0	2.8	3.6	2.5	3.0	3.5	4.1	5.2	4.1	5.1	3.8	52.5	50.3	
Missouri	29.1	16.8	25.8	24.7	18.6	16.7	15.3	19.4	29.9	22.4	30.3	27.7	28.4	305.7	336.4	
Montana	4.0	3.9	5.1	3.0	2.3	1.3	.9	2.3	3.2	3.2	5.9	3.2	4.2	5.5	41.5	
Nebraska	6.6	15.2	6.1	5.6	4.7	2.4	2.6	5.6	8.7	6.2	8.3	10.2	8.0	82.0	100.0	
Nevada	3.9	3.6	7.2	4.3	3.0	3.6	2.3	3.7	3.0	5.7	3.0	2.6	3.1	45.5	75.3	
New Hampshire	2.6	3.0	4.5	2.1	1.5	1.1	1.6	3.1	4.4	2.9	3.8	3.6	3.8	37.8	41.2	
New Jersey	68.4	71.8	72.3	58.8	50.4	40.3	55.6	54.1	73.6	62.8	68.8	64.2	72.4	810.5	832.3	
New Mexico	10.4	7.9	7.0	6.7	5.4	9.0	5.4	7.2	6.5	7.0	7.1	6.6	5.9	77.2	85.7	
New York	105.6	198.0	117.7	111.6	80.8	73.0	86.9	100.8	120.8	129.6	140.9	122.4	166.9	1,470.0	1,480.0	
North Carolina	15.5	18.5	21.5	16.2	15.2	16.1	11.9	14.9	16.7	14.4	20.4	20.5	17.5	221.4	216.4	
North Dakota	4.1	5.4	2.9	1.6	.5	.3	.9	1.8	3.5	4.0	6.0	3.9	6.6	40.5	35.8	
Ohio	125.7	123.9	99.1	94.7	73.6	52.6	53.5	78.8	111.1	83.5	116.1	136.2	139.8	1,202.0	1,216.0	
Oklahoma	8.5	10.6	10.9	10.3	9.2	7.2	8.2	15.9	9.4	13.0	13.4	12.0	13.5	143.2	149.2	
Oregon	13.2	14.0	12.1	11.4	7.9	12.8	7.2	11.9	13.4	16.3	17.5	16.9	21.1	182.0	157.2	
Pennsylvania	74.1	72.0	74.4	64.1	49.6	39.9	47.2	48.6	65.5	58.1	67.6	67.6	92.5	750.7	871.9	
Rhode Island	3.9	5.2	4.3	2.9	1.8	1.6	3.1	4.6	3.6	3.5	4.9	8.1	14.1	59.6	45.0	
South Carolina	5.9	5.1	8.2	4.4	4.7	4.9	5.3	4.7	6.8	5.1	5.4	6.5	6.0	75.8	94.6	
South Dakota	2.5	4.1	6.0	2.0	1.0	.9	1.0	1.6	4.5	3.2	2.6	3.3	5.3	37.4	36.9	
Tennessee	22.0	21.6	18.3	15.4	10.5	8.9	13.6	17.0	15.7	15.5	16.5	24.4	19.1	213.0	219.6	
Texas	91.3	87.0	83.2	82.4	77.1	98.2	56.1	64.9	78.1	71.9	75.2	78.1	75.1	916.9	1,024.0	
Utah	12.2	14.2	8.1	13.3	7.6	4.3	4.3	9.0	8.1	12.6	14.8	8.7	13.1	145.2	118.7	
Vermont	.5	.9	1.3	1.2	.2	.2	.2	.6	.6	.2	.8	.5	1.5	10.1	11.3	
Virginia	51.5	36.4	33.8	29.6	33.7	24.7	23.2	24.8	40.7	31.2	36.1	37.3	55.5	452.4	475.2	
Washington	28.9	32.5	28.5	30.5	24.7	22.2	20.7	25.7	24.8	32.7	37.4	32.8	51.7	300.6	381.0	
West Virginia	16.4	6.8	6.0	4.6	5.2	3.1	2.8	5.2	6.2	5.1	5.8	5.9	7.9	64.4	67.4	
Wisconsin	44.9	45.9	51.8	38.7	26.0	18.7	18.8	34.0	40.9	36.6	39.7	38.9	43.6	442.0	438.8	
Wyoming	2.2	1.8	1.8	1.6	.8	.9	1.9	.8	3.4	2.0	2.7	1.8	3.1	25.6	18.6	

¹ See footnote 1, table F-3.² Comprised of 168 Standard Metropolitan Areas used in 1950 Census.

*Revised.

SOURCE: U. S. Department of Labor Bureau of Labor Statistics.

TABLE F-6. Number of new permanent nonfarm dwelling units started, by ownership and location, and construction cost¹

Period	Number of new dwelling units started									Estimated construction cost ¹ (in thousands)			
	Total	Privately owned	Publicly owned	Location									
				Metro- politan places	Nonmetro- politan places	North- east	North Central	South	West	Total	Privately owned	Publicly owned	
1950	1,396,000	1,352,200	43,800	1,021,800	374,400	(1)	(1)	(1)	(1)	\$11,788,595	\$11,418,371	\$370,224	
1951	1,091,300	1,020,100	71,200	776,800	314,500	(1)	(1)	(1)	(1)	9,800,892	9,186,123	614,769	
1952	1,127,000	1,068,500	58,500	794,900	332,100	(1)	(1)	(1)	(1)	10,208,963	9,706,276	502,707	
1953	1,103,800	1,068,300	35,500	303,500	300,300	(1)	(1)	(1)	(1)	10,488,003	10,181,185	306,881	
1954	1,220,400	1,201,700	18,700	896,900	223,500	243,100	325,800	359,700	291,800	12,478,237	12,309,200	169,037	
1955	1,326,900	1,309,500	19,400	975,800	353,100	273,100	356,000	389,000	310,800	14,544,647	14,345,829	198,518	
1956	1,116,100	1,093,900	24,200	779,800	338,300	226,800	303,100	334,200	252,000	13,086,118	12,814,776	271,342	
1957:													
First quarter	257,100	238,100	19,000	184,400	72,700	(1)	(1)	(1)	(1)	2,346,213	2,183,710	162,603	
Second quarter	324,300	315,000	9,300	238,100	86,200	(1)	(1)	(1)	(1)	3,083,256	3,000,120	83,136	
Third quarter	295,000	280,700	4,300	207,800	77,200	(1)	(1)	(1)	(1)	2,777,607	2,739,268	38,339	
Fourth quarter	237,400	234,500	2,900	173,200	64,200	(1)	(1)	(1)	(1)	2,280,927	2,258,087	22,840	
1958:													
First quarter	238,800	232,200	4,600	174,300	62,500	47,400	52,700	77,600	59,100	2,240,448	2,199,446	41,002	
Second quarter	332,700	326,500	6,200	244,000	88,700	67,300	98,400	90,900	76,100	3,454,571	3,398,894	55,673	
Third quarter	346,000	339,300	6,700	252,800	93,200	72,500	97,800	99,900	75,800	3,590,366	3,528,471	61,895	
Fourth quarter	304,900	303,700	1,200	225,800	79,100	55,900	76,900	91,300	80,800	3,192,852	3,182,385	10,467	
1959:													
First quarter	291,300	288,000	3,300	221,800	66,500	53,100	63,400	95,900	78,900	3,076,198	3,043,959	32,239	
January	87,600	87,300	300	68,100	19,500	16,000	15,600	40,600	25,400	862,794	890,092	2,702	
February	89,900	87,900	2,000	66,900	23,000	13,500	19,700	32,400	24,300	954,570	934,585	19,985	
March	113,800	112,800	1,000	86,800	27,000	23,600	28,100	32,900	29,200	1,228,534	1,219,282	9,552	
Second quarter	404,400	297,000	7,400	295,400	109,000	89,700	116,600	109,600	88,500	4,416,285	4,349,159	67,126	
April	132,000	130,500	1,500	96,800	35,200	28,600	37,300	35,700	30,400	1,434,395	1,421,309	13,086	
May	137,600	135,100	2,500	99,700	37,900	30,300	40,000	37,400	29,900	1,502,901	1,479,773	23,128	
June	134,800	131,400	8,400	98,900	35,900	30,800	39,300	36,500	28,200	1,475,969	1,448,077	30,912	
Third quarter	362,200	357,800	4,400	263,300	98,900	75,300	108,100	99,400	79,500	4,025,441	3,981,182	44,259	
July	122,600	121,900	700	88,300	34,300	27,000	35,600	32,700	27,300	1,372,150	1,363,092	9,058	
August	124,700	122,300	2,400	91,500	33,200	24,900	38,000	34,800	27,000	1,369,948	1,346,848	23,100	
September	114,900	113,600	1,300	83,500	31,400	23,400	34,400	31,900	25,200	1,283,343	1,271,242	12,101	
Fourth quarter	271,200	266,700	4,500	195,800	75,400	55,500	68,600	84,000	63,700	3,026,723	2,971,529	55,194	
October	105,800	104,800	1,000	76,500	29,300	23,500	29,400	28,500	24,400	1,178,809	1,168,229	10,580	
November	89,200	88,400	800	64,600	24,600	17,700	23,000	27,800	20,700	993,986	985,891	8,065	
December	76,200	73,500	2,700	54,700	21,500	14,300	15,600	27,700	18,600	852,928	817,409	36,519	
1956:													
First quarter	252,100	244,600	7,500	183,800	68,300	45,700	58,200	65,000	26,800	2,850,687	2,761,446	89,241	
January	75,100	73,700	1,400	54,300	20,800	12,400	15,700	27,200	19,800	514,448	500,665	13,783	
February	78,400	77,000	1,400	57,600	20,800	14,400	16,100	26,800	20,800	887,138	871,700	15,438	
March	98,600	93,900	4,700	71,900	26,700	15,900	26,100	29,200	24,400	1,149,101	1,089,011	60,020	
Second quarter	332,300	325,300	7,200	228,300	104,200	72,300	98,100	93,200	68,900	3,924,184	3,844,192	79,992	
April	111,400	109,900	1,500	76,500	35,200	23,400	33,600	31,100	23,300	1,309,175	1,293,488	15,687	
May	113,700	110,800	2,900	77,600	36,100	23,300	32,800	32,900	22,900	1,365,513	1,312,890	33,623	
June	107,400	106,100	2,800	74,500	32,900	24,200	31,200	29,200	22,700	1,298,468	1,237,814	30,682	
Third quarter	288,900	292,900	6,000	202,900	96,000	61,500	62,400	57,000	63,400	3,534,804	3,471,787	63,017	
July	101,100	99,000	2,100	69,700	31,400	21,500	29,900	27,700	21,700	1,201,352	1,179,206	22,080	
August	103,900	103,200	700	70,900	33,000	20,800	29,200	30,700	23,200	1,227,269	1,222,281	4,988	
September	93,900	90,700	3,200	62,300	31,600	19,200	27,600	28,600	18,500	1,106,183	1,070,240	35,943	
Fourth quarter	234,600	231,100	3,500	164,800	69,800	49,000	59,600	71,300	64,700	2,776,442	2,737,351	39,062	
October	93,600	91,200	2,400	64,900	28,700	20,100	26,200	27,500	19,500	1,104,981	1,078,142	26,839	
November	77,400	76,700	400	54,800	22,600	14,500	19,200	19,000	15,000	930,589	925,991	4,598	
December	63,600	62,900	700	55,100	15,000	12,400	14,200	21,100	14,700	744,783	733,218	7,655	
1957:													
First quarter	215,800	202,600	13,300	149,100	66,700	33,300	33,500	37,700	28,800	56,400	2,540,016	2,351,729	183,267
January	60,100	59,200	2,900	44,000	10,000	9,300	10,700	24,800	18,200	718,318	687,401	31,71	
February	65,800	63,100	2,700	45,600	19,200	9,700	14,000	24,600	17,500	762,871	727,081	35,790	
March	87,000	79,300	7,700	58,500	28,500	14,800	22,100	29,400	20,700	1,058,827	943,501	115,326	
Second quarter	293,700	280,300	13,400	199,700	94,000	30,200	19,900	23,700	28,100	2,533,325	2,362,795	170,730	
April	93,700	91,400	2,300	63,500	24,800	20,900	25,700	33,700	22,700	1,115,826	1,087,149	28,677	
May	103,000	98,900	6,100	65,200	34,800	20,900	25,700	33,700	22,700	1,236,239	1,153,246	82,993	
June	97,000	92,000	5,000	68,000	29,000	(1)	(1)	(1)	(1)	1,181,460	1,122,400	59,060	
Third quarter	96,000	90,200	5,800	62,700	33,300	(1)	(1)	(1)	(1)	1,165,740	1,100,440	65,300	
July	95,000	92,600	2,400	65,600	29,400	(1)	(1)	(1)	(1)	1,136,620	1,111,200	25,420	

¹ Excludes temporary units, conversions, dormitory accommodations, trailers, and military barracks; includes prefabricated housing if permanent.

These estimates are based on (1) monthly building-permit reports adjusted for lapsed permits and for lag between permit issuance and the start of construction, (2) continuous field surveys in nonpermit-issuing places, and (3) reports of public construction contract awards.

Private construction costs are based on permit valuation adjusted for understatement of costs shown on permit applications. Public construction costs are based on contract values or estimated construction costs for individual projects.

Note: For a description of these series, see Techniques of Preparing Major BLS Statistical Series, BLS Bull. 1168 (1954).

SOURCE: U. S. Department of Labor, Bureau of Labor Statistics.

G: Work Injuries

TABLE G-1. Injury-frequency rates¹ for selected manufacturing industries

Industry	1957 ²				1956 ³				1955				Annual average	
	Second quarter				First quarter	Fourth quarter	Third quarter	Second quarter	First quarter	Fourth quarter	Third quarter	Second quarter		
	Apr.	May	June	Quarter										
Average, all manufacturing	11.4	11.2	11.2	11.3	11.1	11.0	12.3	11.9	12.0	11.7	13.1	12.1	11.9	12.1
Food and kindred products:														
Meatpacking and custom slaughtering	18.2	16.4	18.5	17.7	18.2	17.8	19.3	19.4	18.9	18.4	20.8	18.1	19.1	18.9
Sausage and other prepared meat products	30.5	28.9	23.7	27.7	22.4	25.6	24.0	23.4	24.1	17.7	21.7	20.6	24.0	20.7
Poultry and small game dressing and packing	(*)	(*)	(*)	39.0	28.9	36.8	35.1	39.7	32.9	35.9	39.1	32.3	36.7	34.3
Dairy products	18.1	21.1	21.4	19.9	17.1	16.4	17.3	18.1	15.1	16.2	16.5	19.3	16.8	17.4
Canning and preserving	16.8	17.2	28.7	21.6	19.5	19.2	26.4	20.8	19.2	22.1	26.1	20.3	22.6	22.8
Grained products	11.1	11.9	14.7	12.5	15.3	15.3	17.0	16.1	13.8	16.5	19.6	15.0	15.9	16.5
Bakery products	20.7	17.0	17.1	18.2	19.3	16.9	16.1	15.7	16.1	15.3	18.3	14.9	16.2	16.2
Cane sugar	15.8	18.1	14.4	15.5	17.5	13.6	11.0	21.1	21.5	19.9	15.9	15.9	18.3	17.0
Confectionery and related products	10.4	11.5	9.5	10.4	11.1	10.9	12.1	12.5	12.5	13.2	14.7	12.1	12.1	13.3
Bottled soft drinks	22.9	22.4	25.6	23.7	20.8	15.8	23.9	27.6	19.4	19.1	28.9	25.4	22.4	24.0
Malt and malt liquors	13.0	14.5	13.2	13.6	16.2	11.7	17.9	18.1	12.9	14.2	18.4	18.3	15.3	17.4
Distilled liquors	13.8	11.0	6.8	10.4	10.2	5.3	7.8	7.5	7.7	7.7	9.6	9.0	6.9	8.4
Miscellaneous food products	14.7	14.5	17.7	15.7	16.3	13.5	13.7	14.3	13.9	13.4	15.7	12.9	14.2	13.8
Textile-mill products:														
Cotton yarn and textiles	9.7	10.8	8.9	9.8	8.4	8.2	9.0	9.3	8.3	8.1	8.6	8.3	8.6	8.3
Rayon, other synthetic, and silk textiles	8.0	5.8	5.7	6.6	7.0	7.0	7.2	6.2	6.8	7.6	6.5	6.8	6.8	6.8
Woolen and worsted textiles	17.7	20.3	18.3	18.7	20.9	17.2	18.6	19.1	17.7	18.2	17.4	16.7	18.2	16.9
Knit goods	4.9	5.5	3.9	4.4	4.7	5.5	5.8	5.9	6.3	5.0	6.5	6.3	5.9	5.8
Dyeing and finishing textiles	12.2	12.1	14.6	12.9	10.0	12.3	14.2	13.1	15.0	16.2	15.8	12.6	13.7	14.0
Miscellaneous textile goods	17.8	18.0	12.4	15.8	17.2	15.8	16.9	17.5	16.9	16.1	20.5	17.5	17.2	18.0
Apparel and other finished textile products:														
Clothing, men's and boys'	6.9	6.2	6.8	6.6	6.9	6.4	6.8	6.5	6.0	7.4	6.9	6.5	6.3	6.8
Clothing, women's and children's	5.4	5.5	7.1	5.9	6.2	5.2	5.6	4.9	4.2	5.4	6.0	4.8	4.9	5.4
Fur goods and miscellaneous apparel	6.8	9.9	9.1	8.5	6.3	5.4	6.5	6.8	5.5	6.1	8.4	8.0	5.6	7.4
Miscellaneous fabricated textile products	14.2	10.6	10.0	11.5	9.1	11.1	12.1	12.7	10.9	11.7	13.9	15.5	11.8	13.1
Lumber and wood products (except furniture):														
Logging	49.7	72.9	74.6	67.5	67.0	65.4	71.4	63.6	72.5	74.3	79.9	67.7	69.4	73.5
Sawmills and planing mills	38.3	37.2	42.1	39.2	37.6	36.4	42.8	44.6	41.0	38.7	45.5	43.1	41.3	41.5
Millwork and structural wood products	23.2	20.8	20.1	20.3	20.4	20.0	18.3	20.7	21.7	21.2	21.0	24.5	22.6	20.8
Plywood mills	23.2	23.3	20.8	22.4	25.1	22.0	25.8	25.8	22.4	26.9	30.5	28.9	24.2	29.6
Wooden containers	21.5	29.9	24.1	24.9	25.6	25.2	28.3	27.2	27.4	27.4	29.7	29.0	27.3	28.0
Miscellaneous wood products	29.1	23.9	28.3	27.1	27.2	26.3	31.2	29.2	27.4	27.8	31.2	32.0	28.9	29.5
Furniture and fixtures:														
Household furniture, nonmetal	16.6	17.3	14.6	16.2	17.2	16.4	17.7	17.7	17.8	18.6	19.3	18.7	17.4	18.2
Metal household furniture	17.4	10.6	6.7	11.8	12.6	14.4	16.6	13.4	13.0	18.6	13.1	14.1	13.9	15.7
Mattresses and bedsprings	14.5	11.3	19.3	14.9	17.0	17.1	19.3	19.4	20.2	17.3	20.1	14.9	19.0	17.4
Office furniture	19.8	13.3	12.0	16.8	16.5	15.3	15.3	17.8	16.7	14.4	21.8	21.7	16.6	18.4
Public-building and professional furniture	22.4	16.1	17.3	18.5	9.4	16.5	26.1	16.1	15.0	21.1	20.1	19.1	18.5	18.6
Partitions and fixtures	14.5	28.3	26.2	20.3	18.2	22.7	21.3	21.8	19.3	22.2	22.9	12.7	21.5	18.6
Screens, shades, and blinds	(*)	(*)	(*)	12.5	17.9	17.0	19.9	16.1	17.6	13.8	16.2	18.0	12.4	16.0
Paper and allied products:														
Pulp, paper, and paperboard mills	9.5	9.5	9.6	9.5	10.2	10.4	11.7	10.6	10.9	10.5	12.0	11.0	10.9	11.2
Paperboard containers and boxes	15.0	14.5	14.6	14.7	12.0	14.7	14.4	12.5	15.4	13.9	14.4	15.6	14.4	14.6
Miscellaneous paper and allied products	11.0	13.6	15.0	13.2	15.1	13.3	13.3	11.6	13.5	14.2	15.4	14.2	12.8	14.6
Printing, publishing, and allied industries:														
Newspapers and periodicals	11.0	7.8	10.2	9.6	7.9	8.2	9.2	9.5	10.0	8.2	9.4	9.6	9.2	9.0
Miscellaneous printing and publishing	7.4	9.7	8.8	8.6	9.6	7.5	8.9	9.9	8.9	9.3	9.7	8.5	8.9	8.9
Chemicals and allied products:														
Industrial inorganic chemicals	4.3	5.9	5.2	5.2	4.7	5.0	7.1	4.9	5.2	5.0	5.8	4.9	5.6	5.3
Plastics, except synthetic rubber	4.7	3.3	2.9	3.6	3.9	3.5	4.2	3.7	3.5	4.4	5.4	4.1	3.7	4.5
Synthetic rubber	(*)	(*)	(*)	1.2	3.4	1.2	1.9	2.7	3.5	2.7	(*)	2.0	1.6	
Synthetic fibers	2.9	2.7	1.9	2.5	2.3	1.3	1.7	1.7	2.0	2.5	1.9	3.1	1.7	2.4
Explosives	(*)	(*)	(*)	1.9	2.4	3.2	3.3	2.6	2.6	3.2	2.2	3.5	3.0	2.6
Miscellaneous industrial organic chemicals	5.9	4.9	4.1	5.0	2.6	2.5	2.8	3.3	2.6	3.7	4.0	5.0	2.8	4.1
Drugs and medicines	5.1	6.4	6.8	6.1	7.7	6.4	7.6	8.5	8.0	6.1	8.5	7.7	7.6	7.5
Soap and related products	7.6	9.4	5.0	7.3	7.3	7.2	8.5	7.1	7.2	6.3	8.8	7.5	7.5	7.6
Paints, pigments, and related products	8.5	8.7	6.0	7.8	8.7	9.4	10.1	9.1	9.3	7.9	9.8	11.6	9.4	9.7
Fertilizers	(*)	(*)	(*)	10.3	14.4	18.6	16.0	11.0	14.0	16.4	14.1	14.8	14.6	15.1
Vegetable and animal oils and fats	24.9	28.3	26.1	26.4	22.3	24.5	20.6	19.0	19.1	21.4	23.6	20.2	20.9	22.2
Compressed and liquefied gases	(*)	(*)	(*)	3.7	6.9	4.9	4.3	4.6	6.7	14.0	9.5	15.7	5.2	11.3
Miscellaneous chemicals and allied products	13.0	15.4	16.3	14.9	14.5	14.0	17.0	15.0	15.3	14.7	15.6	17.4	15.2	15.7
Rubber products:														
Tires and inner tubes	2.9	3.8	4.2	3.6	3.8	3.2	4.2	3.5	4.6	4.0	4.0	3.8	3.9	3.8
Rubber footwear	7.3	8.5	4.1	6.6	7.5	5.7	5.9	5.4	4.8	4.1	3.3	4.0	5.3	3.7
Miscellaneous rubber products	9.5	7.7	6.2	7.8	14.3	9.0	10.8	11.1	12.9	9.7	11.1	10.2	11.3	10.2
Leather and leather products:														
Leather tanning and finishing	21.2	21.5	17.1	19.9	21.0	17.1	23.8	20.3	23.4	20.8	27.0	21.3	21.2	22.5
Boot and shoe cut stock and findings	(*)	(*)	(*)	19.7	17.7	20.1	20.8	16.3	18.9	17.6	20.3	23.2	18.7	20.7
Footwear (except rubber)	7.7	9.6	8.1	8.5	7.3	8.4	8.4	8.7	8.2	8.8	10.4	8.1	8.4	8.8
Miscellaneous leather products	12.1	8.8	14.6	11.7	14.5	15.4	11.5	12.7	15.7	13.4	12.2	11.3	14.1	13.2
Stone, clay, and glass products:														
Glass and glass products	8.3	5.3	8.4	7.4	8.6	8.2	9.8	8.1	7.7	10.2	10.0	9.5	8.7	9.7
Structural clay products	30.6	29.6	25.9	28.7	27.1	25.6	33.1	34.0	30.4	34.3	39.1	32.8	31.3	35.1
Pottery and related products	15.7	13.5	12.9	14.0	11.3	15.5	15.0	14.5	15.6	14.8	15.8	15.4	15.1	16.1
Concrete, gypsum, and mineral wool	19.5	20.1	24.4	21.3	20.8	20.4	30.4	24.2	25.2	31.7	25.1	26.2	26.6	26.6
Miscellaneous nonmetallic mineral products	13.4	9.9	12.8	12.0	12.9	13.6	11.9	11.9	13.6	13.5	17.2	17.2	12.9	15.9

See footnotes at end of table.

TABLE G-1. Injury-frequency rates¹ for selected manufacturing industries—Continued

Industry	1957 ²				1956 ³				1955				Annual average	
	Second quarter				First quarter	Fourth quarter	Third quarter	Second quarter	First quarter	Fourth quarter	Third quarter	Second quarter	1956 ²	1955
	Apr.	May	June	Quarter										
Primary metal industries:														
Blast furnaces and steel mills	3.9	3.7	4.5	4.0	3.9	4.4	4.7	4.5	4.4	4.8	4.9	4.7	4.5	4.8
Gray-iron and malleable foundries	23.9	25.9	25.5	25.0	22.5	25.4	20.1	26.9	29.2	27.5	32.5	26.7	27.8	27.7
Steel foundries	24.7	23.9	18.4	22.4	24.7	22.0	25.8	23.8	23.1	22.8	20.5	19.0	23.8	19.9
Nonferrous rolling, drawing, and alloying	11.3	9.9	8.1	9.7	9.0	10.8	9.0	10.9	13.0	11.8	11.6	13.2	11.1	11.9
Nonferrous foundries	13.8	15.2	14.0	14.3	16.7	13.7	18.0	17.0	15.5	17.3	19.6	18.0	16.1	18.3
Iron and steel forgings	15.4	17.0	18.8	17.0	15.5	19.6	18.1	19.0	18.2	16.4	17.7	18.0	18.6	18.0
Wire drawing	16.5	14.1	11.5	14.0	9.6	12.5	12.1	11.7	11.9	11.6	13.7	11.5	12.4	12.4
Welded and heavy-riveted pipe	12.3	8.8	12.5	11.1	12.1	11.6	11.6	9.1	8.5	10.3	12.6	10.1	10.1	10.4
Cold-finished steel	9.4	11.9	15.5	12.3	12.6	11.4	12.2	14.6	16.0	13.3	17.5	16.8	13.7	15.7
Fabricated metal products:														
Tin cans and other tinware	6.9	3.9	10.2	7.0	7.2	6.9	9.0	9.0	7.9	7.0	5.9	7.0	8.3	6.8
Cutlery and edge tools	17.6	15.3	14.3	15.7	14.7	18.1	19.2	12.4	17.0	15.2	18.0	14.1	16.4	15.5
Handtools, files, and saws	13.6	18.5	14.3	15.5	16.1	15.5	14.9	17.3	16.3	15.1	15.8	15.7	16.0	15.3
Hardware	8.1	6.9	7.1	7.3	7.0	9.3	10.5	10.1	11.6	10.3	9.6	10.8	10.3	10.6
Sanitary ware and plumbers' supplies	16.9	11.1	17.5	15.1	10.5	14.0	11.9	17.0	15.6	16.3	15.6	17.0	15.0	16.3
Oil burners, heating and cooking apparatus	14.1	16.4	17.6	16.0	14.6	16.4	20.4	15.0	16.1	15.9	18.4	16.5	17.1	16.0
Structural steel and ornamental metal work	25.6	22.1	24.4	24.0	24.0	23.4	24.4	22.3	21.7	20.3	28.0	21.8	22.9	22.9
Metal doors, sash, frame, and trim	16.2	25.9	14.5	19.0	18.8	20.1	18.3	18.8	15.7	12.4	14.0	15.0	18.2	13.6
Boiler-shop products	23.7	24.4	27.6	25.1	24.4	21.1	23.4	24.3	22.9	22.7	23.6	24.5	22.9	22.8
Sheet-metal work	20.8	12.4	16.8	16.3	20.6	18.7	24.5	19.2	23.9	22.4	23.6	22.7	21.3	21.9
Stamped and pressed metal products	12.7	10.4	12.1	11.7	9.7	10.7	11.0	10.5	12.2	11.0	10.8	10.8	11.3	10.8
Metal coating and engraving	15.5	14.2	17.5	17.0	14.1	18.8	23.7	15.6	21.2	16.7	22.4	25.6	19.3	21.4
Fabricated wire products	17.3	19.5	17.1	18.0	17.7	17.7	18.9	16.6	17.2	15.5	19.2	18.3	17.5	17.1
Metal barrels, drums, kegs, and pails	(9)	(9)	(9)	10.0	13.4	7.0	12.8	14.0	15.4	16.9	17.2	19.9	12.4	15.8
Steel springs	(9)	(9)	(9)	16.0	16.7	17.3	15.1	14.0	15.3	19.6	14.9	14.7	15.5	16.0
Bolts, nuts, washers, and rivets	11.8	7.8	8.8	9.5	11.7	13.0	14.9	13.7	13.9	14.2	14.8	13.2	14.0	13.6
Screw-machine products	14.8	21.4	8.9	15.1	13.6	14.3	12.9	13.9	11.9	11.6	12.2	14.6	13.2	12.8
Fabricated metal products, not elsewhere classified	9.5	7.3	11.5	9.4	12.1	9.2	14.4	10.7	10.1	10.5	12.5	11.2	11.1	11.4
Machinery (except electrical):														
Engines and turbines	7.9	8.5	7.4	7.9	8.0	9.5	10.1	10.3	11.2	8.9	8.9	8.7	10.3	8.7
Agricultural machinery and tractors	9.6	8.4	9.2	9.1	8.7	7.8	7.9	9.6	9.9	9.3	8.6	10.7	8.9	9.5
Construction and mining machinery	18.9	14.2	14.0	15.7	17.8	16.3	18.2	19.3	17.5	16.1	17.1	17.2	17.8	16.5
Metalworking machinery	10.5	10.1	9.7	10.1	10.4	10.3	10.7	10.5	11.0	9.9	9.9	9.7	10.7	9.8
Food-products machinery	19.3	16.7	12.5	16.3	15.6	16.2	17.2	15.4	16.1	15.1	16.4	16.3	16.1	14.8
Textile machinery	9.7	14.6	11.1	11.9	9.5	10.8	11.3	8.1	8.9	11.5	11.8	8.5	9.7	10.2
Miscellaneous special-industry machinery	15.5	16.7	15.7	15.9	16.9	14.9	16.8	17.7	16.3	15.1	14.0	13.3	16.3	13.9
Pumps and compressors	11.4	12.7	12.3	12.1	14.5	12.1	14.4	12.4	14.3	12.9	13.4	13.9	13.3	13.8
Elevators, escalators, and conveyors	15.9	17.5	12.8	15.4	15.5	16.5	15.4	16.2	16.1	15.5	14.2	16.0	14.7	
Mechanical power-transmission equipment (except ball and roller bearings)	15.1	12.8	10.8	12.9	11.9	13.2	16.9	14.0	11.4	13.6	13.8	14.0	12.4	
Miscellaneous general industrial machinery	13.0	14.0	14.7	13.9	14.8	12.3	12.8	13.1	12.1	11.9	13.7	14.4	12.9	12.8
Commercial and household machinery	5.8	4.9	5.7	5.4	5.8	5.4	5.3	5.9	6.1	5.7	7.0	7.1	5.7	6.4
Valves and fittings	19.0	18.8	14.1	17.4	15.9	15.9	18.8	16.7	15.9	14.9	16.5	15.2	17.0	14.4
Fabricated pipe and fittings	(9)	(9)	(9)	14.1	17.4	15.2	14.3	11.2	13.7	15.2	13.3	20.2	15.5	13.5
Ball and roller bearings	8.3	8.0	7.8	8.0	8.2	11.3	10.8	10.3	11.4	10.9	11.6	9.2	10.9	10.3
Machine shops, general	14.2	11.8	15.2	13.8	11.7	11.2	12.1	12.4	13.5	13.4	13.7	15.6	12.5	14.0
Electrical machinery:														
Electrical industrial apparatus	5.9	5.6	5.4	5.6	5.6	5.6	5.9	6.3	7.1	6.8	7.1	6.3	6.2	6.6
Electrical appliances	6.4	5.9	6.2	6.1	4.3	5.9	4.2	5.8	8.1	7.3	8.1	5.4	5.9	6.6
Insulated wire and cable	13.3	7.8	9.2	10.0	12.9	13.1	15.0	14.5	15.2	10.8	10.9	15.5	14.5	12.8
Electrical equipment for vehicles	3.6	3.2	3.0	3.3	3.9	3.7	3.8	3.4	4.1	4.4	3.5	4.8	3.7	4.5
Electric lamps (bulbs)	2.9	3.6	4.1	3.6	3.0	2.9	2.4	3.6	3.1	3.3	2.6	3.9	3.0	3.1
Radios and related products	5.7	5.2	4.5	5.1	4.4	4.6	4.7	4.6	5.1	5.2	5.3	4.8	4.8	5.1
Radio tubes	1.8	1.3	1.7	1.6	3.2	2.5	2.0	3.2	3.8	3.5	2.2	2.7	2.9	2.9
Miscellaneous communication equipment	3.1	2.6	2.6	2.8	3.3	2.5	2.4	2.4	2.3	3.1	3.1	1.8	2.6	
Batteries	12.5	6.2	10.3	9.6	10.5	11.9	10.6	8.8	11.7	11.8	14.4	11.6	10.8	12.7
Electrical products, not elsewhere classified	(9)	(9)	(9)	7.0	7.3	9.1	8.3	10.5	6.8	5.3	4.2	5.1	8.7	5.5
Transportation equipment:														
Motor vehicles, bodies, and trailers	6.0	4.5	4.6	4.7	4.2	3.6	3.8	4.3	3.9	4.2	4.6	3.9	3.9	4.1
Motor-vehicle parts and accessories	6.4	6.5	5.5	6.2	5.9	6.2	5.8	5.8	5.9	6.9	7.2	5.9	6.5	
Aircraft	3.0	3.0	2.9	3.0	2.5	2.6	2.8	2.3	2.9	2.6	2.8	2.9	2.7	
Aircraft parts	5.1	4.0	3.3	4.1	4.0	4.0	4.1	4.4	5.0	4.5	5.0	4.9	4.4	4.8
Shipbuilding and repairing	16.1	17.9	18.6	17.5	17.4	15.9	15.4	18.6	20.3	15.8	19.1	19.8	17.7	18.0
Boatbuilding and repairing	(9)	(9)	(9)	38.9	32.0	26.6	26.1	33.5	45.4	30.3	36.0	26.5	32.7	29.6
Railroad equipment	8.0	7.7	6.9	7.5	10.0	8.6	9.9	9.3	10.4	10.0	10.7	9.1	9.5	9.6
Instruments and related products:														
Scientific instruments	5.3	4.8	4.2	4.8	4.2	4.5	6.1	8.5	5.0	4.2	5.1	6.6	5.9	5.2
Mechanical measuring and controlling instruments	6.3	8.1	6.7	7.1	5.9	6.3	5.2	6.3	6.3	5.5	7.1	6.3	6.0	5.9
Optical instruments and lenses	(9)	(9)	(9)	6.0	4.6	4.1	4.6	4.0	3.0	3.3	7.1	6.3	4.0	5.6
Medical instruments and supplies	5.5	6.7	9.6	7.3	6.7	4.6	10.5	8.2	8.4	6.2	8.2	7.4	7.9	7.3
Photographic equipment and supplies	5.1	5.3	4.3	4.9	4.0	4.4	4.4	5.9	6.2	5.3	6.3	6.4	5.4	5.5
Watches and clocks	(9)	(9)	(9)	5.7	7.2	5.4	4.8	6.1	4.6	6.1	6.0	5.7	5.3	6.2
Miscellaneous manufacturing industries:														
Paving and roofing materials	(9)	(9)	(9)	8.9	17.0	11.9	12.6	15.2	10.3	17.4	12.5	11.6	12.6	12.8
Jewelry, silverware, and plated ware	5.3	5.8	7.0	6.0	6.6	6.4	5.8	5.8	7.1	5.0	6.6	8.0	6.1	6.8
Fabricated plastics products	10.6	12.2	9.4	10.7	11.2	13.1	13.0	12.8	13.4	13.9	11.8	11.4	13.2	12.7
Miscellaneous manufacturing	13.7	11.9	11.5	12.4	10.5	11.8	11.1	13.2	13.7	13.2	13.7	12.6	12.8	13.1
Ordnance and accessories	5.1	6.2	4.7	5.4	4.9	4.2	5.0	5.5	4.6	6.1	6.8	7.1	4.9	6.1

¹ The injury-frequency rate is the average number of disabling work injuries for each million employee-hours worked. A disabling work injury is any injury occurring in the course of or arising out of employment, which (a) results in death or any degree of permanent physical impairment, or (b) makes the injured worker unable to perform the duties of any regularly established job which is open and available to him throughout the hours corresponding to his regular shift on any one or more days after the day of injury (including Sundays, days off, or plant shutdowns). The term "injury" includes occupational disease.

² Rates are subject to revision when final annual averages become available.

³ Insufficient data to warrant presentation of average.

NOTE: These data are compiled in accordance with the American Standard Method of Recording and Measuring Work Injury Experience, approved by the American Standards Association, 1954.

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SOURCE: U. S. Department of Labor, Bureau of Labor Statistics.

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